

Sequence Listing

<110> Baker, Kevin P.
 Ferrara, Napoleone
 Gerber, Hanspeter
 Gerritsen, Mary E.
 Goddard, Audrey
 Godowski, Paul J.
 Gurney, Austin L.
 Hillan, Kenneth J.
 Marsters, Scot A.
 Pan, James
 Paoni, Nicholas F.
 Stephan, Jean-Philippe F.
 Watanabe, Colin K.
 Wood, William I.
 Williams, P.Mickey
 Ye, Weilan

<120> COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND
 TREATMENT OF DISORDERS INVOLVING ANGIOGENESIS

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 Thr Gly Asn Ser Phe Gln Leu Pro His Lys Arg Glu Phe Ser Arg
 65 70 75
 Glu Asn Pro Ala Gln Asn Leu Pro Lys Val Asp Ala Ser Gly Glu
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 Asp Arg Leu Trp Gly Gly Gln Met Pro Thr Glu Glu Leu Trp Lys
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Asn	Ile	Ile	Leu	Asn	Asn	Leu	Asp	Leu	Glu	Asp	Ile	Asn	Asp	Phe
			290						295					300
Gly	Asp	Asp	Gly	Ser	Leu	Tyr	Ile	Thr	Lys	Val	Thr	Thr	Thr	His
			305						310					315
Val	Gly	Asn	Tyr	Thr	Cys	Tyr	Ala	Asp	Gly	Tyr	Glu	Gln	Val	Tyr
			320						325					330
Gln	Thr	His	Ile	Phe	Gln	Val	Asn	Val	Pro	Pro	Val	Ile		
			335						340					

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 <212> DNA
 <213> Homosapiens

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 cagcggacga cctctcgct ccggggctga gccagctccc tggatgttc 200
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 gccactgcca ccgccgccgc ctctgctgcc gccgtccgc ggaagtccag 300
 tagcccgctc ccggccccc gcgactcgt gttcctcgga agccgtttgc 350
 tgctgcagag ttgcacgaac tagtcatggt gctgtggag tcccccggc 400
 agtgacagag ctggacactt tgcgaggct tttgctgct gctgctgctg 450
 ccgctcatgc tactcatcgt agcccgccgc gtgaagctcg ctgctttccc 500
 tacctcctta agtgactgcc aaacgcccac cggctggaat tgctctggtt 550
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 catccacctg tgatatattgc cagtttggtg cagaatgtga cgaagtgc 900
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acgtgtttcc cggctcctga cgatttcagt atgtcttaac cgcagctgtg 1350
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aaggaaatgc ccagaagca acagaattca cagacagaag caaataacag 1450
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tacagtatta tagacaaaag aataagacaa gagatctaca catgttgctt 1600
tgcatattgt gtaatctaca ccaatgaaaa catgtactac agctatattt 1650
gattatgtat ggatatattt gaaatagtat acattgtctt gatgtttttt 1700
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catgtatttg ttatatataa taaatactca gtgatgag 1788

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<211> 374
<212> PRT
<213> Homosapiens

<400> 14
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Cys Glu Gly Phe Cys Trp Leu Leu Leu Leu Pro Val Met Leu Leu
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Ile Val Ala Arg Pro Val Lys Leu Ala Ala Phe Pro Thr Ser Leu
35 40 45
Ser Asp Cys Gln Thr Pro Thr Gly Trp Asn Cys Ser Gly Tyr Asp
50 55 60
Asp Arg Glu Asn Asp Leu Phe Leu Cys Asp Thr Asn Thr Cys Lys
65 70 75
Phe Asp Gly Glu Cys Leu Arg Ile Gly Asp Thr Val Thr Cys Val
80 85 90
Cys Gln Phe Lys Cys Asn Asn Asp Tyr Val Pro Val Cys Gly Ser
95 100 105
Asn Gly Glu Ser Tyr Gln Asn Glu Cys Tyr Leu Arg Gln Ala Ala
110 115 120

Cys	Lys	Gln	Gln	Ser	Glu	Ile	Leu	Val	Val	Ser	Glu	Gly	Ser	Cys	
				125					130					135	
Ala	Thr	Asp	Ala	Gly	Ser	Gly	Ser	Gly	Asp	Gly	Val	His	Glu	Gly	
				140					145					150	
Ser	Gly	Glu	Thr	Ser	Gln	Lys	Glu	Thr	Ser	Thr	Cys	Asp	Ile	Cys	
				155					160					165	
Gln	Phe	Gly	Ala	Glu	Cys	Asp	Glu	Asp	Ala	Glu	Asp	Val	Trp	Cys	
				170					175					180	
Val	Cys	Asn	Ile	Asp	Cys	Ser	Gln	Thr	Asn	Phe	Asn	Pro	Leu	Cys	
				185					190					195	
Ala	Ser	Asp	Gly	Lys	Ser	Tyr	Asp	Asn	Ala	Cys	Gln	Ile	Lys	Glu	
				200					205					210	
Ala	Ser	Cys	Gln	Lys	Gln	Glu	Lys	Ile	Glu	Val	Met	Ser	Leu	Gly	
				215					220					225	
Arg	Cys	Gln	Asp	Asn	Thr	Thr	Thr	Thr	Thr	Lys	Ser	Glu	Asp	Gly	
				230					235					240	
His	Tyr	Ala	Arg	Thr	Asp	Tyr	Ala	Glu	Asn	Ala	Asn	Lys	Leu	Glu	
				245					250					255	
Glu	Ser	Ala	Arg	Glu	His	His	Ile	Pro	Cys	Pro	Glu	His	Tyr	Asn	
				260					265					270	
Gly	Phe	Cys	Met	His	Gly	Lys	Cys	Glu	His	Ser	Ile	Asn	Met	Gln	
				275					280					285	
Glu	Pro	Ser	Cys	Arg	Cys	Asp	Ala	Gly	Tyr	Thr	Gly	Gln	His	Cys	
				290					295					300	
Glu	Lys	Lys	Asp	Tyr	Ser	Val	Leu	Tyr	Val	Val	Pro	Gly	Pro	Val	
				305					310					315	
Arg	Phe	Gln	Tyr	Val	Leu	Ile	Ala	Ala	Val	Ile	Gly	Thr	Ile	Gln	
				320					325					330	
Ile	Ala	Val	Ile	Cys	Val	Val	Val	Leu	Cys	Ile	Thr	Arg	Lys	Cys	
				335					340					345	
Pro	Arg	Ser	Asn	Arg	Ile	His	Arg	Gln	Lys	Gln	Asn	Thr	Gly	His	
				350					355					360	
Tyr	Ser	Ser	Asp	Asn	Thr	Thr	Arg	Ala	Ser	Thr	Arg	Leu	Ile		
				365					370						

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 <211> 1475
 <212> DNA
 <213> Homosapiens

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 tggttgtgct tatcctggta aaatataaag gactcaaacg cgtggaaaaa 250
 atctatcttc taaacttggc agtttctaac ttgtgtttct tgcttaccct 300
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 gactgtactt cgtgggcctg tacagtgaga catttttcaa ttgccttctg 400
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<210> 16
 <211> 344
 <212> PRT
 <213> Homosapiens

<400> 16
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				20					25					30	
Tyr	Asp	Ala	Gln	Ala	Leu	Ser	Ala	Gln	Leu	Val	Pro	Ser	Leu	Cys	
				35					40					45	
Ser	Ala	Val	Phe	Val	Ile	Gly	Val	Leu	Asp	Asn	Leu	Leu	Val	Val	
				50					55					60	
Leu	Ile	Leu	Val	Lys	Tyr	Lys	Gly	Leu	Lys	Arg	Val	Glu	Asn	Ile	
				65					70					75	
Tyr	Leu	Leu	Asn	Leu	Ala	Val	Ser	Asn	Leu	Cys	Phe	Leu	Leu	Thr	
				80					85					90	
Leu	Pro	Phe	Trp	Ala	His	Ala	Gly	Gly	Asp	Pro	Met	Cys	Lys	Ile	
				95					100					105	
Leu	Ile	Gly	Leu	Tyr	Phe	Val	Gly	Leu	Tyr	Ser	Glu	Thr	Phe	Phe	
				110					115					120	
Asn	Cys	Leu	Leu	Thr	Val	Gln	Arg	Tyr	Leu	Val	Phe	Leu	His	Lys	
				125					130					135	
Gly	Asn	Phe	Phe	Ser	Ala	Arg	Arg	Arg	Val	Pro	Cys	Gly	Ile	Ile	
				140					145					150	
Thr	Ser	Val	Leu	Ala	Trp	Val	Thr	Ala	Ile	Leu	Ala	Thr	Leu	Pro	
				155					160					165	
Glu	Tyr	Val	Val	Tyr	Lys	Pro	Gln	Met	Glu	Asp	Gln	Lys	Tyr	Lys	
				170					175					180	
Cys	Ala	Phe	Ser	Arg	Thr	Pro	Phe	Leu	Pro	Ala	Asp	Glu	Thr	Phe	
				185					190					195	
Trp	Lys	His	Phe	Leu	Thr	Leu	Lys	Met	Asn	Ile	Ser	Val	Leu	Val	
				200					205					210	
Leu	Pro	Leu	Phe	Ile	Phe	Thr	Phe	Leu	Tyr	Val	Gln	Met	Arg	Lys	
				215					220					225	
Thr	Leu	Arg	Phe	Arg	Glu	Gln	Arg	Tyr	Ser	Leu	Phe	Lys	Leu	Val	
				230					235					240	
Phe	Ala	Ile	Met	Val	Val	Phe	Leu	Leu	Met	Trp	Ala	Pro	Tyr	Asn	
				245					250					255	
Ile	Ala	Phe	Phe	Leu	Ser	Thr	Phe	Lys	Glu	His	Phe	Ser	Leu	Ser	
				260					265					270	
Asp	Cys	Lys	Ser	Ser	Tyr	Asn	Leu	Asp	Lys	Ser	Val	His	Ile	Thr	
				275					280					285	
Lys	Leu	Ile	Ala	Thr	Thr	His	Cys	Cys	Ile	Asn	Pro	Leu	Leu	Tyr	
				290					295					300	
Ala	Phe	Leu	Asp	Gly	Thr	Phe	Ser	Lys	Tyr	Leu	Cys	Arg	Cys	Phe	
				305					310					315	
His	Leu	Arg	Ser	Asn	Thr	Pro	Leu	Gln	Pro	Arg	Gly	Gln	Ser	Ala	
				320					325					330	

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<210> 18

<211> 420

<212> PRT

<213> Homosapiens

<400> 18

Met	Ala	Pro	Trp	Pro	Pro	Lys	Gly	Leu	Val	Pro	Ala	Val	Leu	Trp	1	5	10	15
Gly	Leu	Ser	Leu	Phe	Leu	Asn	Leu	Pro	Gly	Pro	Ile	Trp	Leu	Gln	20	25	30	
Pro	Ser	Pro	Pro	Pro	Gln	Ser	Ser	Pro	Pro	Pro	Gln	Pro	His	Pro	35	40	45	
Cys	His	Thr	Cys	Arg	Gly	Leu	Val	Asp	Ser	Phe	Asn	Lys	Gly	Leu	50	55	60	
Glu	Arg	Thr	Ile	Arg	Asp	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	65	70	75	
Glu	Glu	Glu	Asn	Leu	Ser	Lys	Tyr	Lys	Asp	Ser	Glu	Thr	Arg	Leu	80	85	90	
Val	Glu	Val	Leu	Glu	Gly	Val	Cys	Ser	Lys	Ser	Asp	Phe	Glu	Cys	95	100	105	
His	Arg	Leu	Leu	Glu	Leu	Ser	Glu	Glu	Leu	Val	Glu	Ser	Trp	Trp	110	115	120	
Phe	His	Lys	Gln	Gln	Glu	Ala	Pro	Asp	Leu	Phe	Gln	Trp	Leu	Cys	125	130	135	
Ser	Asp	Ser	Leu	Lys	Leu	Cys	Cys	Pro	Ala	Gly	Thr	Phe	Gly	Pro	140	145	150	
Ser	Cys	Leu	Pro	Cys	Pro	Gly	Gly	Thr	Glu	Arg	Pro	Cys	Gly	Gly	155	160	165	
Tyr	Gly	Gln	Cys	Glu	Gly	Glu	Gly	Thr	Arg	Gly	Gly	Ser	Gly	His	170	175	180	

Cys	Asp	Cys	Gln	Ala	Gly	Tyr	Gly	Gly	Glu	Ala	Cys	Gly	Gln	Cys	185	195
Gly	Leu	Gly	Tyr	Phe	Glu	Ala	Glu	Arg	Asn	Ala	Ser	His	Leu	Val	200	210
Cys	Ser	Ala	Cys	Phe	Gly	Pro	Cys	Ala	Arg	Cys	Ser	Gly	Pro	Glu	215	225
Glu	Ser	Asn	Cys	Leu	Gln	Cys	Lys	Lys	Gly	Trp	Ala	Leu	His	His	230	240
Leu	Lys	Cys	Val	Asp	Ile	Asp	Glu	Cys	Gly	Thr	Glu	Gly	Ala	Asn	245	255
Cys	Gly	Ala	Asp	Gln	Phe	Cys	Val	Asn	Thr	Glu	Gly	Ser	Tyr	Glu	260	270
Cys	Arg	Asp	Cys	Ala	Lys	Ala	Cys	Leu	Gly	Cys	Met	Gly	Ala	Gly	275	285
Pro	Gly	Arg	Cys	Lys	Lys	Cys	Ser	Pro	Gly	Tyr	Gln	Gln	Val	Gly	290	300
Ser	Lys	Cys	Leu	Asp	Val	Asp	Glu	Cys	Glu	Thr	Glu	Val	Cys	Pro	305	315
Gly	Glu	Asn	Lys	Gln	Cys	Glu	Asn	Thr	Glu	Gly	Gly	Tyr	Arg	Cys	320	330
Ile	Cys	Ala	Glu	Gly	Tyr	Lys	Gln	Met	Glu	Gly	Ile	Cys	Val	Lys	335	345
Glu	Gln	Ile	Pro	Glu	Ser	Ala	Gly	Phe	Phe	Ser	Glu	Met	Thr	Glu	350	360
Asp	Glu	Leu	Val	Val	Leu	Gln	Gln	Met	Phe	Phe	Gly	Ile	Ile	Ile	365	375
Cys	Ala	Leu	Ala	Thr	Leu	Ala	Ala	Lys	Gly	Asp	Leu	Val	Phe	Thr	380	390
Ala	Ile	Phe	Ile	Gly	Ala	Val	Ala	Ala	Met	Thr	Gly	Tyr	Trp	Leu	395	405
Ser	Glu	Arg	Ser	Asp	Arg	Val	Leu	Glu	Gly	Phe	Ile	Lys	Gly	Arg	410	420

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 <211> 1305
 <212> DNA
 <213> Homosapiens

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 gggctcgtga ttatgctgac attccagcat gaatctggta gacctgtggt 200

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 ttctcttggtg ggtttaaatg tcacctgtag caatgcaaat ctcaaggaaa 350
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 aacaaacact acaacataaa taatttgagt ttaggtgatc caccctttaa 1150
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 aaaca 1305

<210> 20
 <211> 259
 <212> PRT
 <213> Homosapiens

<400> 20
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 Ala Ser Met Cys Pro Lys Gly Cys Leu Cys Ser Ser Ser Gly Gly
 35 40 45
 Leu Asn Val Thr Cys Ser Asn Ala Asn Leu Lys Glu Ile Pro Arg
 50 55 60

Asp Leu Pro Pro Glu Thr Val Leu Leu Tyr Leu Asp Ser Asn Gln
 65 70
 Ile Thr Ser Ile Pro Asn Glu Ile Phe Lys Asp Leu His Gln Leu
 80 85 90
 Arg Val Leu Asn Leu Ser Lys Asn Gly Ile Glu Phe Ile Asp Glu
 95 100 105
 His Ala Phe Lys Gly Val Ala Glu Thr Leu Gln Thr Leu Asp Leu
 110 115 120
 Ser Asp Asn Arg Ile Gln Ser Val His Lys Asn Ala Phe Asn Asn
 125 130 135
 Leu Lys Ala Arg Ala Arg Ile Ala Asn Asn Pro Trp His Cys Asp
 140 145 150
 Cys Thr Leu Gln Gln Val Leu Arg Ser Met Ala Ser Asn His Glu
 155 160 165
 Thr Ala His Asn Val Ile Cys Lys Thr Ser Val Leu Asp Glu His
 170 175 180
 Ala Gly Arg Pro Phe Leu Asn Ala Ala Asn Asp Ala Asp Leu Cys
 185 190 195
 Asn Leu Pro Lys Lys Thr Thr Asp Tyr Ala Met Leu Val Thr Met
 200 205 210
 Phe Gly Trp Phe Thr Met Val Ile Ser Tyr Val Val Tyr Tyr Val
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 Arg Gln Asn Gln Glu Asp Ala Arg Arg His Leu Glu Tyr Leu Lys
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 Ser Leu Pro Ser Arg Gln Lys Lys Ala Asp Glu Pro Asp Asp Ile
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 Ser Thr Val Val

<210> 21
 <211> 2822
 <212> DNA
 <213> Homosapiens

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 aatgaatgtg gaaatttaac tcagtctctgt ggcgaaaatg ctaattgcac 250
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 attacatata tagaaatatt agctgaatca tcttcattac taggttacaa 550
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 Met Gly Phe Ser Gly Asn Gly Val Thr Ile Cys Glu Asp Asp Asn
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 Glu Cys Gly Asn Leu Thr Gln Ser Cys Gly Glu Asn Ala Asn Cys
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Cys Ile Ala Ala Asn	Ile Asn Lys Thr Leu	Thr Lys Ile Arg Ser	
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140	145	150	
Val Thr Asp Leu Ser	Pro Thr Asp Ile Ile	Thr Tyr Ile Glu Ile	
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Ser Ala Lys Asp Thr	Leu Ser Asn Ser Thr	Leu Thr Glu Phe Val	
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Lys Thr Val Asn Asn	Phe Val Gln Arg Asp	Thr Phe Val Val Trp	
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Gln Lys Thr Thr Glu	Phe Asp Thr Asn Ser	Thr Asp Ile Ala Leu	
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Tyr Tyr Lys Ser Ile	Gly Pro Leu Leu Ser	Ser Ser Asp Asn Phe	
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Thr Leu Tyr Glu Leu	Glu Lys Ile Thr Phe	Thr Leu Ser His Arg	
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Lys Val Thr Asp Arg	Tyr Arg Ser Leu Cys	Ala Phe Trp Asn Tyr	
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Ile Ile Ser Leu	Ile Cys Leu Ala	Ile Cys	Ile Phe Thr Phe	Trp
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Phe Phe Ser Glu	Ile Gln Ser Thr Arg	Thr Thr	Ile His Lys	Asn
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Leu Cys Cys Ser	Leu Phe Leu Ala Glu	Leu Val	Phe Leu Val	Gly
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Ile Asn Thr Asn	Thr Asn Lys Leu Phe	Cys Ser	Ile Ile Ala	Gly
	485		490	495
Leu Leu His Tyr	Phe Phe Leu Ala Ala	Phe Ala	Trp Met Cys	Ile
	500		505	510
Glu Gly Ile His	Leu Tyr Leu Ile Val	Val Gly Val	Ile Tyr	Asn
	515		520	525
Lys Gly Phe Leu	His Lys Asn Phe Tyr	Ile Phe	Gly Tyr Leu	Ser
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Pro Ala Val Val	Val Gly Phe Ser Ala	Ala Leu	Gly Tyr Arg	Tyr
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Tyr Gly Thr Thr	Lys Val Cys Trp Leu	Ser Thr	Glu Asn Asn	Phe
	560		565	570
Ile Trp Ser Phe	Ile Gly Pro Ala Cys	Leu Ile	Ile Leu Val	Asn
	575		580	585
Leu Leu Ala Phe	Gly Val Ile Ile Tyr	Lys Val	Phe Arg His	Thr
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Ala Gly Leu Lys	Pro Glu Val Ser Cys	Phe Glu	Asn Ile Arg	Ser
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Cys Ala Arg Gly	Ala Leu Ala Leu Leu	Phe Leu	Leu Gly Thr	Thr
	620		625	630
Trp Ile Phe Gly	Val Leu His Val Val	His Ala	Ser Val Val	Thr
	635		640	645
Ala Tyr Leu Phe	Thr Val Ser Asn Ala	Phe Gln	Gly Met Phe	Ile
	650		655	660
Phe Leu Phe Leu	Cys Val Leu Ser Arg	Lys Ile	Gln Glu Glu	Tyr
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Tyr Arg Leu Phe	Lys Asn Val Pro Cys	Cys Phe	Gly Cys Leu	Arg
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 <212> DNA
 <213> Homosapiens

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 <213> Homosapiens

<400> 24

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Gly	Thr	Val	Cys	Asp	Asp	Gly	Trp	Asp	Ile	Lys	Asp	Val	Ala	Val
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Leu	Cys	Arg	Glu	Leu	Gly	Cys	Gly	Ala	Ala	Ser	Gly	Thr	Pro	Ser
				65					70					75
Gly	Ile	Leu	Tyr	Glu	Pro	Pro	Ala	Glu	Lys	Glu	Gln	Lys	Val	Leu
				80					85					90
Ile	Gln	Ser	Val	Ser	Cys	Thr	Gly	Thr	Glu	Asp	Thr	Leu	Ala	Gln
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Cys	Glu	Gln	Glu	Glu	Val	Tyr	Asp	Cys	Ser	His	Asp	Glu	Asp	Ala
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Gly	Ala	Ser	Cys	Glu	Asn	Pro	Glu	Ser	Ser	Phe	Ser	Pro	Val	Pro
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Glu	Gly	Val	Arg	Leu	Ala	Asp	Gly	Pro	Gly	His	Cys	Lys	Gly	Arg
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Val	Glu	Val	Lys	His	Gln	Asn	Gln	Trp	Tyr	Thr	Val	Cys	Gln	Thr
				155					160					165
Gly	Trp	Ser	Leu	Arg	Ala	Ala	Lys	Val	Val	Cys	Arg	Gln	Leu	Gly
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Cys	Gly	Arg	Ala	Val	Leu	Thr	Gln	Lys	Arg	Cys	Asn	Lys	His	Ala
				185					190					195
Tyr	Gly	Arg	Lys	Pro	Ile	Trp	Leu	Ser	Gln	Met	Ser	Cys	Ser	Gly
				200					205					210
Arg	Glu	Ala	Thr	Leu	Gln	Asp	Cys	Pro	Ser	Gly	Pro	Trp	Gly	Lys
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Asn	Thr	Cys	Asn	His	Asp	Glu	Asp	Thr	Trp	Val	Glu	Cys	Glu	Asp
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Pro	Phe	Asp	Leu	Arg	Leu	Val	Gly	Gly	Asp	Asn	Leu	Cys	Ser	Gly
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Arg	Leu	Glu	Val	Leu	His	Lys	Gly	Val	Trp	Gly	Ser	Val	Cys	Asp
				260					265					270
Asp	Asn	Trp	Gly	Glu	Lys	Glu	Asp	Gln	Val	Val	Cys	Lys	Gln	Leu
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Gly	Cys	Gly	Lys	Ser	Leu	Ser	Pro	Ser	Phe	Arg	Asp	Arg	Lys	Cys
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Tyr	Gly	Pro	Gly	Val	Gly	Arg	Ile	Trp	Leu	Asp	Asn	Val	Arg	Cys
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Ser	Gly	Glu	Glu	Gln	Ser	Leu	Glu	Gln	Cys	Gln	His	Arg	Phe	Trp
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 <212> DNA
 <213> Homosapiens

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<211> 164

<212> PRT

<213> Homosapiens

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Leu	Ala	Pro	Gly	Leu	His	Leu	Arg	Gly	Ile	Arg	Asp	Ala	Gly	Gly
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Arg	Tyr	Cys	Gln	Glu	Gln	Asp	Leu	Cys	Cys	Arg	Gly	Arg	Ala	Asp
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 Phe Cys Asn Arg Thr Val Ser Asp Cys Cys Pro Asp Phe Trp Asp
 80 85 90
 Phe Cys Leu Gly Val Pro Pro Pro Phe Pro Pro Ile Gln Gly Cys
 95 100 105
 Met His Gly Gly Arg Ile Tyr Pro Val Leu Gly Thr Tyr Trp Asp
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 Asn Cys Asn Arg Cys Thr Cys Gln Glu Asn Arg Gln Trp His Gly
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<210> 27

<211> 2005

<212> DNA

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<210> 28
<211> 342
<212> PRT
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				80						85				90	
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Gly	Pro	Lys	Gly	Ser	Arg	Gly	Ser	Pro	Gly	Lys	Pro	Gly	Pro	Gln	
				110						115				120	
Gly	Pro	Ser	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Lys	Glu	
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Gly	Pro	Pro	Gly	Pro	Ser	Gly	Ala	Val	Val	Pro	Leu	Ala	Leu	Gln	
				185						190				195	
Asn	Glu	Pro	Thr	Pro	Ala	Pro	Glu	Asp	Asn	Ser	Cys	Pro	Pro	His	
				200						205				210	
Trp	Lys	Asn	Phe	Thr	Asp	Lys	Cys	Tyr	Tyr	Phe	Ser	Val	Glu	Lys	
				215						220				225	
Glu	Ile	Phe	Glu	Asp	Ala	Lys	Leu	Phe	Cys	Glu	Asp	Lys	Ser	Ser	
				230						235				240	
His	Leu	Val	Phe	Ile	Asn	Thr	Arg	Glu	Glu	Gln	Gln	Trp	Ile	Lys	
				245						250				255	
Lys	Gln	Met	Val	Gly	Arg	Glu	Ser	His	Trp	Ile	Gly	Leu	Thr	Asp	
				260						265				270	
Ser	Glu	Arg	Glu	Asn	Glu	Trp	Lys	Trp	Leu	Asp	Gly	Thr	Ser	Pro	
				275						280				285	
Asp	Tyr	Lys	Asn	Trp	Lys	Ala	Gly	Gln	Pro	Asp	Asn	Trp	Gly	His	
				290						295				300	
Gly	His	Gly	Pro	Gly	Glu	Asp	Cys	Ala	Gly	Leu	Ile	Tyr	Ala	Gly	
				305						310				315	
Gln	Trp	Asn	Asp	Phe	Gln	Cys	Glu	Asp	Val	Asn	Asn	Phe	Ile	Cys	
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Glu	Lys	Asp	Arg	Glu	Thr	Val	Leu	Ser	Ser	Ala	Leu				
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 <212> PRT
 <213> Homosapiens

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 Pro Arg Ser His Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro
 65 70 75
 Phe Gly Cys Gln Cys Tyr Ser Arg Val Val His Cys Ser Asp Leu
 80 85 90
 Gly Leu Thr Ser Val Pro Thr Asn Ile Pro Phe Asp Thr Arg Met
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Leu	Asp	Leu	Gln	Asn	Asn	Lys	Ile	Lys	Glu	Ile	Lys	Glu	Asn	Asp	110	115	120
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Lys	Leu	Thr	Lys	Ile	His	Pro	Lys	Ala	Phe	Leu	Thr	Thr	Lys	Lys	140	145	150
Leu	Arg	Arg	Leu	Tyr	Leu	Ser	His	Asn	Gln	Leu	Ser	Glu	Ile	Pro	155	160	165
Leu	Asn	Leu	Pro	Lys	Ser	Leu	Ala	Glu	Leu	Arg	Ile	His	Glu	Asn	170	175	180
Lys	Val	Lys	Lys	Ile	Gln	Lys	Asp	Thr	Phe	Lys	Gly	Met	Asn	Ala	185	190	195
Leu	His	Val	Leu	Glu	Met	Ser	Ala	Asn	Pro	Leu	Asp	Asn	Asn	Gly	200	205	210
Ile	Glu	Pro	Gly	Ala	Phe	Glu	Gly	Val	Thr	Val	Phe	His	Ile	Arg	215	220	225
Ile	Ala	Glu	Ala	Lys	Leu	Thr	Ser	Val	Pro	Lys	Gly	Leu	Pro	Pro	230	235	240
Thr	Leu	Leu	Glu	Leu	His	Leu	Asp	Tyr	Asn	Lys	Ile	Ser	Thr	Val	245	250	255
Glu	Leu	Glu	Asp	Phe	Lys	Arg	Tyr	Lys	Glu	Leu	Gln	Arg	Leu	Gly	260	265	270
Leu	Gly	Asn	Asn	Lys	Ile	Thr	Asp	Ile	Glu	Asn	Gly	Ser	Leu	Ala	275	280	285
Asn	Ile	Pro	Arg	Val	Arg	Glu	Ile	His	Leu	Glu	Asn	Asn	Lys	Leu	290	295	300
Lys	Lys	Ile	Pro	Ser	Gly	Leu	Pro	Glu	Leu	Lys	Tyr	Leu	Gln	Ile	305	310	315
Ile	Phe	Leu	His	Ser	Asn	Ser	Ile	Ala	Arg	Val	Gly	Val	Asn	Asp	320	325	330
Phe	Cys	Pro	Thr	Val	Pro	Lys	Met	Lys	Lys	Ser	Leu	Tyr	Ser	Ala	335	340	345
Ile	Ser	Leu	Phe	Asn	Asn	Pro	Val	Lys	Tyr	Trp	Glu	Met	Gln	Pro	350	355	360
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 <211> 2372
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<211> 322

<212> PRT

<213> Homosapiens

<400> 32

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Ser	Ile	Gln	Val	Ser	Cys	Arg	Ile	Met	Gly	Ile	Thr	Leu	Val	Ser
			35						40					45
Lys	Lys	Ala	Asn	Gln	Gln	Leu	Asn	Phe	Thr	Glu	Ala	Lys	Glu	Ala
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Cys	Arg	Leu	Leu	Gly	Leu	Ser	Leu	Ala	Gly	Lys	Asp	Gln	Val	Glu
			65						70					75
Thr	Ala	Leu	Lys	Ala	Ser	Phe	Glu	Thr	Cys	Ser	Tyr	Gly	Trp	Val
			80						85					90
Gly	Asp	Gly	Phe	Val	Val	Ile	Ser	Arg	Ile	Ser	Pro	Asn	Pro	Lys
			95						100					105
Cys	Gly	Lys	Asn	Gly	Val	Gly	Val	Leu	Ile	Trp	Lys	Val	Pro	Val
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Ser	Arg	Gln	Phe	Ala	Ala	Tyr	Cys	Tyr	Asn	Ser	Ser	Asp	Thr	Trp

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Asp Ser Thr Tyr	Ser Val Ala Ser Pro	Tyr Ser Thr Ile Pro	Ala		
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Pro Thr Thr Thr	Pro Pro Ala Pro Ala	Ser Thr Ser Ile Pro	Arg		
	185		190		195
Arg Lys Lys Leu	Ile Cys Val Thr Glu	Val Phe Met Glu Thr	Ser		
	200		205		210
Thr Met Ser Thr	Glu Thr Glu Pro Phe	Val Glu Asn Lys Ala	Ala		
	215		220		225
Phe Lys Asn Glu	Ala Ala Gly Phe Gly	Gly Val Pro Thr Ala	Leu		
	230		235		240
Leu Val Leu Ala	Leu Leu Phe Phe Gly	Ala Ala Ala Gly Leu	Gly		
	245		250		255
Phe Cys Tyr Val	Lys Arg Tyr Val Lys	Ala Phe Pro Phe Thr	Asn		
	260		265		270
Lys Asn Gln Gln	Lys Glu Met Ile Glu	Thr Lys Val Val Lys	Glu		
	275		280		285
Glu Lys Ala Asn	Asp Ser Asn Pro Asn	Glu Glu Ser Lys Lys	Thr		
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Asp Lys Asn Pro	Glu Glu Ser Lys Ser	Pro Ser Lys Thr Thr	Val		
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Arg Cys Leu Glu	Ala Glu Val				
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 <212> DNA
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 <211> 856
 <212> PRT
 <213> Homosapiens

<400> 34
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Ala Leu Glu Glu	Val Leu Leu Asp Thr	Thr Gly Glu Thr Ser	Glu 45
	35	40	
Ile Gly Trp Leu	Thr Tyr Pro Pro Gly	Gly Trp Asp Glu Val	Ser 60
	50	55	
Val Leu Asp Asp	Gln Arg Arg Leu Thr	Arg Thr Phe Glu Ala	Cys 75
	65	70	
His Val Ala Gly	Ala Pro Pro Gly Thr	Gly Gln Asp Asn Trp	Leu 90
	80	85	
Gln Thr His Phe	Val Glu Arg Arg Gly	Ala Gln Arg Ala His	Ile 105
	95	100	
Arg Leu His Phe	Ser Val Arg Ala Cys	Ser Ser Leu Gly Val	Ser 120
	110	115	
Gly Gly Thr Cys	Arg Glu Thr Phe Thr	Leu Tyr Tyr Arg Gln	Ala 135
	125	130	
Glu Glu Pro Asp	Ser Pro Asp Ser Val	Ser Ser Trp His Leu	Lys 150
	140	145	
Arg Trp Thr Lys	Val Asp Thr Ile Ala	Ala Asp Glu Ser Phe	Pro 165
	155	160	
Ser Ser Ser Ser	Ser Ser Ser Ser Ser	Ser Ser Ser Ala Ala	Trp 180
	170	175	
Ala Val Gly Pro	His Gly Ala Gly Gln	Arg Ala Gly Leu Gln	Leu 195
	185	190	
Asn Val Lys Glu	Arg Ser Phe Gly Pro	Leu Thr Gln Arg Gly	Phe 210
	200	205	
Tyr Val Ala Phe	Gln Asp Thr Gly Ala	Cys Leu Ala Leu Val	Ala 225
	215	220	
Val Arg Leu Phe	Ser Tyr Thr Cys Pro	Ala Val Leu Arg Ser	Phe 240
	230	235	
Ala Ser Phe Pro	Glu Thr Gln Ala Ser	Gly Ala Gly Gly Ala	Ser 255
	245	250	
Leu Val Ala Ala	Val Gly Thr Cys Val	Ala His Ala Glu Pro	Glu 270
	260	265	
Glu Asp Gly Val	Gly Gly Gln Ala Gly	Gly Ser Pro Pro Arg	Leu 285
	275	280	
His Cys Asn Gly	Glu Gly Lys Trp Met	Val Ala Val Gly Gly	Cys 300
	290	295	
Arg Cys Gln Pro	Gly Tyr Gln Pro Ala	Arg Gly Asp Lys Ala	Cys 315
	305	310	

Gln Ala Cys Pro	Arg Gly Leu Tyr Lys	Ala Ser Ala Gly Asn Ala	320	325	330
Pro Cys Ser Pro	Cys Pro Ala Arg Ser	His Ala Pro Asn Pro Ala	335	340	345
Ala Pro Val Cys	Pro Cys Leu Glu Gly	Phe Tyr Arg Ala Ser Ser	350	355	360
Asp Pro Pro Glu	Ala Pro Cys Thr Gly	Pro Pro Ser Ala Pro Gln	365	370	375
Glu Leu Trp Phe	Glu Val Gln Gly Ser	Ala Leu Met Leu His Trp	380	385	390
Arg Leu Pro Arg	Glu Leu Gly Gly Arg	Gly Asp Leu Leu Phe Asn	395	400	405
Val Val Cys Lys	Glu Cys Glu Gly Arg	Gln Glu Pro Ala Ser Gly	410	415	420
Gly Gly Gly Thr	Cys His Arg Cys Arg	Asp Glu Val His Phe Asp	425	430	435
Pro Arg Gln Arg	Gly Leu Thr Glu Ser	Arg Val Leu Val Gly Gly	440	445	450
Leu Arg Ala His	Val Pro Tyr Ile Leu	Glu Val Gln Ala Val Asn	455	460	465
Gly Val Ser Glu	Leu Ser Pro Asp Pro	Pro Gln Ala Ala Ala Ile	470	475	480
Asn Val Ser Thr	Ser His Glu Val Pro	Ser Ala Val Pro Val Val	485	490	495
His Gln Val Ser	Arg Ala Ser Asn Ser	Ile Thr Val Ser Trp Pro	500	505	510
Gln Pro Asp Gln	Thr Asn Gly Asn Ile	Leu Asp Tyr Gln Leu Arg	515	520	525
Tyr Tyr Asp Gln	Ala Glu Asp Glu Ser	His Ser Phe Thr Leu Thr	530	535	540
Ser Glu Thr Asn	Thr Ala Thr Val Thr	Gln Leu Ser Pro Gly His	545	550	555
Ile Tyr Gly Phe	Gln Val Arg Ala Arg	Thr Ala Ala Gly His Gly	560	565	570
Pro Tyr Gly Gly	Lys Val Tyr Phe Gln	Thr Leu Pro Gln Gly Glu	575	580	585
Leu Ser Ser Gln	Leu Pro Glu Arg Leu	Ser Leu Val Ile Gly Ser	590	595	600
Thr Leu Gly Ala	Leu Ala Phe Leu Leu	Leu Ala Ala Ile Thr Val	605	610	615
Leu Ala Val Val	Phe Gln Arg Lys Arg	Arg Gly Thr Gly Tyr Thr	620	625	630

Glu	Gln	Leu	Gln	Gln	Tyr	Ser	Ser	Pro	Gly	Leu	Gly	Val	Lys	Tyr	635	640	645
Tyr	Ile	Asp	Pro	Ser	Thr	Tyr	Glu	Asp	Pro	Cys	Gln	Ala	Ile	Arg	650	655	660
Glu	Leu	Ala	Arg	Glu	Val	Asp	Pro	Ala	Tyr	Ile	Lys	Ile	Glu	Glu	665	670	675
Val	Ile	Gly	Thr	Gly	Ser	Phe	Gly	Glu	Val	Arg	Gln	Gly	Arg	Leu	680	685	690
Gln	Pro	Arg	Gly	Arg	Arg	Glu	Gln	Thr	Val	Ala	Ile	Gln	Ala	Leu	695	700	705
Trp	Ala	Gly	Gly	Ala	Glu	Ser	Leu	Gln	Met	Thr	Phe	Leu	Gly	Arg	710	715	720
Ala	Ala	Val	Leu	Gly	Gln	Phe	Gln	His	Pro	Asn	Ile	Leu	Arg	Leu	725	730	735
Glu	Gly	Val	Val	Thr	Lys	Ser	Arg	Pro	Leu	Met	Val	Leu	Thr	Glu	740	745	750
Phe	Met	Glu	Leu	Gly	Pro	Leu	Asp	Ser	Phe	Leu	Arg	Gln	Arg	Glu	755	760	765
Gly	Gln	Phe	Ser	Ser	Leu	Gln	Leu	Val	Ala	Met	Gln	Arg	Gly	Val	770	775	780
Ala	Ala	Ala	Met	Gln	Tyr	Leu	Ser	Ser	Phe	Ala	Phe	Val	His	Arg	785	790	795
Ser	Leu	Ser	Ala	His	Ser	Val	Leu	Val	Asn	Ser	His	Leu	Val	Cys	800	805	810
Lys	Val	Ala	Arg	Leu	Gly	His	Ser	Pro	Gln	Gly	Pro	Ser	Cys	Leu	815	820	825
Leu	Arg	Trp	Ala	Ala	Pro	Glu	Val	Ile	Ala	His	Gly	Lys	His	Thr	830	835	840
His	Val	Gly	Ser	Asp	Glu	Leu	Trp	Arg	Thr	Ala	Leu	Leu	Gly	His	845	850	855

Glu

<210> 35
 <211> 1514
 <212> DNA
 <213> Homosapiens

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 ccccggcgcc cgagaagac ttgtgtttgc ctccctgcagc ctcaaccggc 150
 agggcagcga ggccctacca ccatgatcac tgggtgtgtc agcatgcgct 200
 tgtggacccc agtgggcgtc ctgacctcgc tggcgtactg cctgcaccag 250

cgggcggtgg ccctggccga gctgcaggag gccgatggcc agtgtccggt 300
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 gggctcggag tctctcaag ccgctcccgc tggaggagca ggtagagtgg 400
 aacccccagc tattagaggt cccaccccaa actcagtttg attacacagt 450
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 aagctgtatc tctatgcggc tcatgatgtg accttcatac cgctcttaat 1200
 gacctggggg atttttgacc acaaatggcc accgtttgct gttgacctga 1250
 ccatggaact ttaccagcac ctggaatcta aggagtgggt tgtgcagctc 1300
 tattaccacg ggaaggagca ggtgccgaga ggttgccctg atgggctctg 1350
 cccgctggac atgttcttga atgccatgtc agtttatacc ttaagcccag 1400
 aaaaatacca tgcactctgc tctcaaactc aggtgatgga agttggaaat 1450
 gaagagtaac tgatttataa aagcaggatg tgttgatttt aaaataaagt 1500
 gcctttatag aatg 1514

<210> 36
 <211> 428
 <212> PRT
 <213> Homosapiens

<400> 36
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Leu	Ala	Glu	Leu	Gln	Glu	Ala	Asp	Gly	Gln	Cys	Pro	Val	Asp	Arg	35	45
Ser	Leu	Leu	Lys	Leu	Lys	Met	Val	Gln	Val	Val	Phe	Arg	His	Gly	50	60
Ala	Arg	Ser	Pro	Leu	Lys	Pro	Leu	Pro	Leu	Glu	Glu	Gln	Val	Glu	65	75
Trp	Asn	Pro	Gln	Leu	Leu	Glu	Val	Pro	Pro	Gln	Thr	Gln	Phe	Asp	80	90
Tyr	Thr	Val	Thr	Asn	Leu	Ala	Gly	Gly	Pro	Lys	Pro	Tyr	Ser	Pro	95	105
Tyr	Asp	Ser	Gln	Tyr	His	Glu	Thr	Thr	Leu	Lys	Gly	Gly	Met	Phe	110	120
Ala	Gly	Gln	Leu	Thr	Lys	Val	Gly	Met	Gln	Gln	Met	Phe	Ala	Leu	125	135
Gly	Glu	Arg	Leu	Arg	Lys	Asn	Tyr	Val	Glu	Asp	Ile	Pro	Phe	Leu	140	150
Ser	Pro	Thr	Phe	Asn	Pro	Gln	Glu	Val	Phe	Ile	Arg	Ser	Thr	Asn	155	165
Ile	Phe	Arg	Asn	Leu	Glu	Ser	Thr	Arg	Cys	Leu	Leu	Ala	Gly	Leu	170	180
Phe	Gln	Cys	Gln	Lys	Glu	Gly	Pro	Ile	Ile	Ile	His	Thr	Asp	Glu	185	195
Ala	Asp	Ser	Glu	Val	Leu	Tyr	Pro	Asn	Tyr	Gln	Ser	Cys	Trp	Ser	200	210
Leu	Arg	Gln	Arg	Thr	Arg	Gly	Arg	Arg	Gln	Thr	Ala	Ser	Leu	Gln	215	225
Pro	Gly	Ile	Ser	Glu	Asp	Leu	Lys	Lys	Val	Lys	Asp	Arg	Met	Gly	230	240
Ile	Asp	Ser	Ser	Asp	Lys	Val	Asp	Phe	Phe	Ile	Leu	Leu	Asp	Asn	245	255
Val	Ala	Ala	Glu	Gln	Ala	His	Asn	Leu	Pro	Ser	Cys	Pro	Met	Leu	260	270
Lys	Arg	Phe	Ala	Arg	Met	Ile	Glu	Gln	Arg	Ala	Val	Asp	Thr	Ser	275	285
Leu	Tyr	Ile	Leu	Pro	Lys	Glu	Asp	Arg	Glu	Ser	Leu	Gln	Met	Ala	290	300
Val	Gly	Pro	Phe	Leu	His	Ile	Leu	Glu	Ser	Asn	Leu	Leu	Lys	Ala	305	315
Met	Asp	Ser	Ala	Thr	Ala	Pro	Asp	Lys	Ile	Arg	Lys	Leu	Tyr	Leu	320	330

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<210> 38
 <211> 310
 <212> PRT
 <213> Homosapiens

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 Gly Lys Ala Tyr Leu Arg Asn Ala Val Val Val Ile Thr Gly Ala
 35 40 45
 Thr Ser Gly Leu Gly Lys Glu Cys Ala Lys Val Phe Tyr Ala Ala
 50 55 60
 Gly Ala Lys Leu Val Leu Cys Gly Arg Asn Gly Gly Ala Leu Glu
 65 70 75
 Glu Leu Ile Arg Glu Leu Thr Ala Ser His Ala Thr Lys Val Gln
 80 85 90
 Thr His Lys Pro Tyr Leu Val Thr Phe Asp Leu Thr Asp Ser Gly
 95 100 105
 Ala Ile Val Ala Ala Ala Ala Glu Ile Leu Gln Cys Phe Gly Tyr
 110 115 120
 Val Asp Ile Leu Val Asn Asn Ala Gly Ile Ser Tyr Arg Gly Thr
 125 130 135
 Ile Met Asp Thr Thr Val Asp Val Asp Lys Arg Val Met Glu Thr
 140 145 150
 Asn Tyr Phe Gly Pro Val Ala Leu Thr Lys Ala Leu Leu Pro Ser
 155 160 165
 Met Ile Lys Arg Arg Gln Gly His Ile Val Ala Ile Ser Ser Ile
 170 175 180

Gln Gly Lys Met	Ser Ile Pro Phe Arg	Ser Ala Tyr Ala Ala	Ser
185		190	195
Lys His Ala Thr	Gln Ala Phe Phe Asp Cys	Leu Arg Ala Glu	Met
200		205	210
Glu Gln Tyr Glu	Ile Glu Val Thr Val Ile	Ser Pro Gly Tyr Ile	
215		220	225
His Thr Asn Leu	Ser Val Asn Ala Ile Thr	Ala Asp Gly Ser	Arg
230		235	240
Tyr Gly Val Met	Asp Thr Thr Thr Ala	Gln Gly Arg Ser Pro	Val
245		250	255
Glu Val Ala Gln	Asp Val Leu Ala Ala	Val Gly Lys Lys Lys	Lys
260		265	270
Asp Val Ile Leu	Ala Asp Leu Leu Pro	Ser Leu Ala Val Tyr	Leu
275		280	285
Arg Thr Leu Ala	Pro Gly Leu Phe Phe	Ser Leu Met Ala Ser	Arg
290		295	300
Ala Arg Lys Glu	Arg Lys Ser Lys Asn	Ser	
305		310	

<210> 39

<211> 3401

<212> DNA

<213> Homosapiens

<400> 39

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 catcaagttc gacgtggact gcaccgtgga cattgagagc ctgacggggt 200
 accgcaccta ccgctgtgcc caccctctgg ccacactctt caagatcctg 250
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 cacactgtgg tggatgttac ggcgtctcct caagaagtac tcgtttgagt 350
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 ttgccttca tctgtcacct cattgaccaa tacgacccgc tctactccaa 450
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 aagaacgcgc aggacaagct ggagctgcac ctgttcattc tcagtggcat 600
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 a 3401

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 <211> 546
 <212> PRT
 <213> Homosapiens

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 20 25 30
 Cys Thr Val Asp Ile Glu Ser Leu Thr Gly Tyr Arg Thr Tyr Arg
 35 40 45
 Cys Ala His Pro Leu Ala Thr Leu Phe Lys Ile Leu Ala Ser Phe
 50 55 60
 Tyr Ile Ser Leu Val Ile Phe Tyr Gly Leu Ile Cys Met Tyr Thr

					65					70					75
Leu	Trp	Trp	Met	Leu	Arg	Arg	Ser	Leu	Lys	Lys	Tyr	Ser	Phe	Glu	
				80					85					90	
Ser	Ile	Arg	Glu	Glu	Ser	Ser	Tyr	Ser	Asp	Ile	Pro	Asp	Val	Lys	
				95					100					105	
Asn	Asp	Phe	Ala	Phe	Met	Leu	His	Leu	Ile	Asp	Gln	Tyr	Asp	Pro	
				110					115					120	
Leu	Tyr	Ser	Lys	Arg	Phe	Ala	Val	Phe	Leu	Ser	Glu	Val	Ser	Glu	
				125					130					135	
Asn	Lys	Leu	Arg	Gln	Leu	Asn	Leu	Asn	Asn	Glu	Trp	Thr	Leu	Asp	
				140					145					150	
Lys	Leu	Arg	Gln	Arg	Leu	Thr	Lys	Asn	Ala	Gln	Asp	Lys	Leu	Glu	
				155					160					165	
Leu	His	Leu	Phe	Met	Leu	Ser	Gly	Ile	Pro	Asp	Thr	Val	Phe	Asp	
				170					175					180	
Leu	Val	Glu	Leu	Glu	Val	Leu	Lys	Leu	Glu	Leu	Ile	Pro	Asp	Val	
				185					190					195	
Thr	Ile	Pro	Pro	Ser	Ile	Ala	Gln	Leu	Thr	Gly	Leu	Lys	Glu	Leu	
				200					205					210	
Trp	Leu	Tyr	His	Thr	Ala	Ala	Lys	Ile	Glu	Ala	Pro	Ala	Leu	Ala	
				215					220					225	
Phe	Leu	Arg	Glu	Asn	Leu	Arg	Ala	Leu	His	Ile	Lys	Phe	Thr	Asp	
				230					235					240	
Ile	Lys	Glu	Ile	Pro	Leu	Trp	Ile	Tyr	Ser	Leu	Lys	Thr	Leu	Glu	
				245					250					255	
Glu	Leu	His	Leu	Thr	Gly	Asn	Leu	Ser	Ala	Glu	Asn	Asn	Arg	Tyr	
				260					265					270	
Ile	Val	Ile	Asp	Gly	Leu	Arg	Glu	Leu	Lys	Arg	Leu	Lys	Val	Leu	
				275					280					285	
Arg	Leu	Lys	Ser	Asn	Leu	Ser	Lys	Leu	Pro	Gln	Val	Val	Thr	Asp	
				290					295					300	
Val	Gly	Val	His	Leu	Gln	Lys	Leu	Ser	Ile	Asn	Asn	Glu	Gly	Thr	
				305					310					315	
Lys	Leu	Ile	Val	Leu	Asn	Ser	Leu	Lys	Lys	Met	Ala	Asn	Leu	Thr	
				320					325					330	
Glu	Leu	Glu	Leu	Ile	Arg	Cys	Asp	Leu	Glu	Arg	Ile	Pro	His	Ser	
				335					340					345	
Ile	Phe	Ser	Leu	His	Asn	Leu	Gln	Glu	Ile	Asp	Leu	Lys	Asp	Asn	
				350					355					360	
Asn	Leu	Lys	Thr	Ile	Glu	Glu	Ile	Ile	Ser	Phe	Gln	His	Leu	His	
				365					370					375	
Arg	Leu	Thr	Cys	Leu	Lys	Leu	Trp	Tyr	Asn	His	Ile	Ala	Tyr	Ile	

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Pro Ile Gln Ile Gly Asn Leu Thr Asn Leu Glu Arg Leu Tyr Leu		
395	400	405
Asn Arg Asn Lys Ile Glu Lys Ile Pro Thr Gln Leu Phe Tyr Cys		
410	415	420
Arg Lys Leu Arg Tyr Leu Asp Leu Ser His Asn Asn Leu Thr Phe		
425	430	435
Leu Pro Ala Asp Ile Gly Leu Leu Gln Asn Leu Gln Asn Leu Ala		
440	445	450
Ile Thr Ala Asn Arg Ile Glu Thr Leu Pro Pro Glu Leu Phe Gln		
455	460	465
Cys Arg Lys Leu Arg Ala Leu His Leu Gly Asn Asn Val Leu Gln		
470	475	480
Ser Leu Pro Ser Arg Val Gly Glu Leu Thr Asn Leu Thr Gln Ile		
485	490	495
Glu Leu Arg Gly Asn Arg Leu Glu Cys Leu Pro Val Glu Leu Gly		
500	505	510
Glu Cys Pro Leu Leu Lys Arg Ser Gly Leu Val Val Glu Glu Asp		
515	520	525
Leu Phe Asn Thr Leu Pro Pro Glu Val Lys Glu Arg Leu Trp Arg		
530	535	540
Ala Asp Lys Glu Gln Ala		
545		

<210> 41
 <211> 2482
 <212> DNA
 <213> Homosapiens

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 50 60
 Phe Val Leu Asp Thr Asn Ala Ser Val Ser Asn Gly Ala Thr Phe
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 Cys Cys Thr Thr Gln Asn Cys Asn Leu Ala Leu Val Glu Leu Gln
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Val	Gly	Arg	Cys	Arg	Gly	Ser	Phe	Pro	Arg	Trp	Tyr	Tyr	Asp	Pro					
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Thr	Glu	Gln	Ile	Cys	Lys	Ser	Phe	Val	Tyr	Gly	Gly	Cys	Leu	Gly					
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Asn	Lys	Asn	Asn	Tyr	Leu	Arg	Glu	Glu	Glu	Cys	Ile	Leu	Ala	Cys					
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Arg	Gly	Val	Gln	Gly	Gly	Pro	Leu	Arg	Gly	Ser	Ser	Gly	Ala	Gln					
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Ala	Thr	Phe	Pro	Gln	Gly	Pro	Ser	Met	Glu	Arg	Arg	His	Pro	Val					
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Cys	Ser	Gly	Thr	Cys	Gln	Pro	Thr	Gln	Phe	Arg	Cys	Ser	Asn	Gly					
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Cys	Val	Asp	Leu	Pro	Asp	Thr	Gly	Leu	Cys	Lys	Glu	Ser	Ile	Pro					
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Gln	Cys	Leu	Glu	Ser	Cys	Arg	Gly	Ile	Ser	Lys	Lys	Asp	Val	Phe					
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Gly	Leu	Arg	Arg	Glu	Ile	Pro	Ile	Pro	Ser	Thr	Gly	Ser	Val	Glu					
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Ala	Ile	Leu	Gly	Tyr	Cys	Phe	Phe	Lys	Asn	Gln	Arg	Lys	Asp	Phe					
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<400> 44

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Ser	Gln	Pro	Trp	Thr	Ser	Asp	Glu	Thr	Val	Val	Ala	Gly	Gly	35	40	45	
Val	Val	Leu	Lys	Cys	Gln	Val	Lys	Asp	His	Glu	Asp	Ser	Ser	50	55	60	
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Arg	Ala	Leu	Arg	Asp	Asn	Arg	Ile	Gln	Leu	Val	Thr	Ser	Thr	80	85	90	
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Gly	Glu	Tyr	Thr	Cys	Ser	Ile	Phe	Thr	Met	Pro	Val	Arg	Thr	110	115	120	
Lys	Ser	Leu	Val	Thr	Val	Leu	Gly	Ile	Pro	Gln	Lys	Pro	Ile	125	130	135	
Thr	Gly	Tyr	Lys	Ser	Ser	Leu	Arg	Glu	Lys	Asp	Thr	Ala	Thr	140	145	150	
Asn	Cys	Gln	Ser	Ser	Gly	Ser	Lys	Pro	Ala	Ala	Arg	Leu	Thr	155	160	165	
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Glu	Asp	Pro	Asn	Gly	Lys	Thr	Phe	Thr	Val	Ser	Ser	Ser	Val	185	190	195	
Phe	Gln	Val	Thr	Arg	Glu	Asp	Asp	Gly	Ala	Ser	Ile	Val	Cys	200	205	210	
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Val Asn Asp Pro Ser Pro Val Pro Ser	Ser Ser Ser Thr Tyr His	
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Ala Ile Ile Gly Gly Ile Val Ala Phe	Ile Val Phe Leu Leu Leu	
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Ile Met Leu Ile Phe Leu Gly His Tyr	Leu Ile Arg His Lys Gly	
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<211> 2479

<212> DNA

<213> Homosapiens

<400> 45

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 Phe Val Tyr Cys Asn Glu Arg Ser Leu Thr Ser Val Pro Leu Gly
 50 55 60
 Ile Pro Glu Gly Val Thr Val Leu Tyr Leu His Asn Asn Gln Ile
 65 70 75
 Asn Asn Ala Gly Phe Pro Ala Glu Leu His Asn Val Gln Ser Val
 80 85 90
 His Thr Val Tyr Leu Tyr Gly Asn Gln Leu Asp Glu Phe Pro Met
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 Asn Leu Pro Lys Asn Val Arg Val Leu His Leu Gln Glu Asn Asn
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 Glu Asp Gly Ala Phe Arg Glu Ala Ile Ser Leu Lys Leu Leu Phe
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 Leu Ser Lys Asn His Leu Ser Ser Val Pro Val Gly Leu Pro Val
 170 175 180
 Asp Leu Gln Glu Leu Arg Val Asp Glu Asn Arg Ile Ala Val Ile
 185 190 195
 Ser Asp Met Ala Phe Gln Asn Leu Thr Ser Leu Glu Arg Leu Ile
 200 205 210

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Phe Ser His Leu	Thr	Lys	Leu	Lys	Glu	Phe	Ser	Ile	Val	Arg	Asn
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Ser Leu Ser His	Pro	Pro	Pro	Asp	Leu	Pro	Gly	Thr	His	Leu	Ile
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Arg Gly Met Ala	Val	Arg	Glu	Leu	Asn	Met	Asn	Leu	Leu	Ser	Cys
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Gln	Leu	Leu	Lys	Gly	Asp	Phe	Arg	Leu	Gln	Pro	Ile	Tyr	Thr	Pro
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Asn	Gly	Gly	Ile	Asn	Tyr	Thr	Asp	Cys	His	Ile	Pro	Asn	Asn	Met
				635					640					645
Arg	Tyr	Cys	Asn	Ser	Ser	Val	Pro	Asp	Leu	Glu	His	Cys	His	Thr
				650					655					660

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 <211> 2573
 <212> DNA
 <213> Murine

<400> 47
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 gcttcagcct ccgggtgct ctgaccgcac gctcccggt gctaggtccc 150
 ccggcacccg cctcgccatg ccgccaccgc ccgggcccgc cggcgccctg 200
 ggcactgcgc ttctgctgct cctgctggct tccgagtctt ctcacactgt 250
 gctgttgccg gcgcgtgagg cggcgcgatt tctgcggccc aggcagcgcc 300
 gcgcctacca agtcttcgag gaggccaagc agggccacct ggaacgggag 350
 tgcgtgagg aggtgtgcag caaagaggag gccagagagg tgttcgagaa 400
 cgaccccgag acggagtatt tctatccacg atatcaagag tgcattgagaa 450
 aatatggcag gcctgaagaa aaaaaccagg atttcgcaa atgtgttcag 500
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 ctgccatagt ggcttctcgc ttgcatcaga cggccagacc tgccaagata 750

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 ctttttaaaa aaaaaaaaaa aaa 2573

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 <211> 673
 <212> PRT
 <213> Murine

<400> 48
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 35 40 45
 Ala Tyr Gln Val Phe Glu Glu Ala Lys Gln Gly His Leu Glu Arg
 50 55 60
 Glu Cys Val Glu Glu Val Cys Ser Lys Glu Glu Ala Arg Glu Val
 65 70 75
 Phe Glu Asn Asp Pro Glu Thr Glu Tyr Phe Tyr Pro Arg Tyr Gln
 80 85 90
 Glu Cys Met Arg Lys Tyr Gly Arg Pro Glu Glu Lys Asn Pro Asp
 95 100 105
 Phe Ala Lys Cys Val Gln Asn Leu Pro Asp Gln Cys Thr Pro Asn
 110 115 120
 Pro Cys Asp Lys Lys Gly Thr His Ile Cys Gln Asp Leu Met Gly
 125 130 135
 Asn Phe Phe Cys Val Cys Thr Asp Gly Trp Gly Gly Arg Leu Cys
 140 145 150
 Asp Lys Asp Val Asn Glu Cys Val Gln Lys Asn Gly Gly Cys Ser
 155 160 165
 Gln Val Cys His Asn Lys Pro Gly Ser Phe Gln Cys Ala Cys His
 170 175 180
 Ser Gly Phe Ser Leu Ala Ser Asp Gly Gln Thr Cys Gln Asp Ile
 185 190 195
 Asp Glu Cys Thr Asp Ser Asp Thr Cys Gly Asp Ala Arg Cys Lys
 200 205 210
 Asn Leu Pro Gly Ser Tyr Ser Cys Leu Cys Asp Glu Gly Tyr Thr
 215 220 225
 Tyr Ser Ser Lys Glu Lys Thr Cys Gln Asp Val Asp Glu Cys Gln
 230 235 240

Gln Asp Arg Cys	Glu Gln Thr Cys Val	Asn Ser Pro Gly Ser Tyr
245		250
Thr Cys His Cys	Asp Gly Arg Gly Gly	Leu Lys Leu Ser Pro Asp
260		265
Met Asp Thr Cys	Glu Asp Ile Leu Pro	Cys Val Pro Phe Ser Met
275		280
Ala Lys Ser Val	Lys Ser Leu Tyr Leu	Gly Arg Met Phe Ser Gly
290		295
Thr Pro Val Ile	Arg Leu Arg Phe Lys	Arg Leu Gln Pro Thr Arg
305		310
Leu Leu Ala Glu	Phe Asp Phe Arg Thr	Phe Asp Pro Glu Gly Val
320		325
Leu Phe Phe Ala	Gly Gly Arg Ser Asp	Ser Thr Trp Ile Val Leu
335		340
Gly Leu Arg Ala	Gly Arg Leu Glu Leu	Gln Leu Arg Tyr Asn Gly
350		355
Val Gly Arg Ile	Thr Ser Ser Gly Pro	Thr Ile Asn His Gly Met
365		370
Trp Gln Thr Ile	Ser Val Glu Glu Leu	Glu Arg Asn Leu Val Ile
380		385
Lys Val Asn Lys	Asp Ala Val Met Lys	Ile Ala Val Ala Gly Glu
395		400
Leu Phe Gln Leu	Glu Arg Gly Leu Tyr	His Leu Asn Leu Thr Val
410		415
Gly Gly Ile Pro	Phe Lys Glu Ser Glu	Leu Val Gln Pro Ile Asn
425		430
Pro Arg Leu Asp	Gly Cys Met Arg Ser	Trp Asn Trp Leu Asn Gly
440		445
Glu Asp Ser Ala	Ile Gln Glu Thr Val	Lys Ala Asn Thr Lys Met
455		460
Gln Cys Phe Ser	Val Thr Glu Arg Gly	Ser Phe Phe Pro Gly Asn
470		475
Gly Phe Ala Thr	Tyr Arg Leu Asn Tyr	Thr Arg Thr Ser Leu Asp
485		490
Val Gly Thr Glu	Thr Thr Trp Glu Val	Lys Val Val Ala Arg Ile
500		505
Arg Pro Ala Thr	Asp Thr Gly Val Leu	Leu Ala Leu Val Gly Asp
515		520
Asp Asp Val Val	Ile Ser Val Ala Leu	Val Asp Tyr His Ser Thr
530		535
Lys Lys Leu Lys	Lys Gln Leu Val Val	Leu Ala Val Glu Asp Val
545		550
		555

Ala	Leu	Ala	Leu	Met	Glu	Ile	Lys	Val	Cys	Asp	Ser	Gln	Glu	His
				560					565					570
Thr	Val	Thr	Val	Ser	Leu	Arg	Glu	Gly	Glu	Ala	Thr	Leu	Glu	Val
				575					580					585
Asp	Gly	Thr	Lys	Gly	Gln	Ser	Glu	Val	Ser	Thr	Ala	Gln	Leu	Gln
				590					595					600
Glu	Arg	Leu	Asp	Thr	Leu	Lys	Thr	His	Leu	Gln	Gly	Ser	Val	His
				605					610					615
Thr	Tyr	Val	Gly	Gly	Leu	Pro	Glu	Val	Ser	Val	Ile	Ser	Ala	Pro
				620					625					630
Val	Thr	Ala	Phe	Tyr	Arg	Gly	Cys	Met	Thr	Leu	Glu	Val	Asn	Gly
				635					640					645
Lys	Ile	Leu	Asp	Leu	Asp	Thr	Ala	Ser	Tyr	Lys	His	Ser	Asp	Ile
				650					655					660
Thr	Ser	His	Ser	Cys	Pro	Pro	Val	Glu	His	Ala	Thr	Pro		
				665					670					

<210> 49
 <211> 2586
 <212> DNA
 <213> Homosapiens

<400> 49
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 agatgcagcg gcttggggcc acctgtgtgt gctgtgtgt ggcggcgccg 200
 gtccccacgg cccccgcgcc cgtccgcacg gcgacctcgg ctccagtcaa 250
 gcccgcccg gctctcagct acccgcagga ggaggccacc ctcaatgaga 300
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 cagacacgaa ggttggaat aataccatcc atgtgcaccg agaattcac 500
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 <212> PRT
 <213> Homosapiens

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 Pro Val Lys Pro Gly Pro Ala Leu Ser Tyr Pro Gln Glu Glu Ala
 35 40 45
 Thr Leu Asn Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp
 50 55 60
 Thr Gln His Lys Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu
 65 70 75
 Glu Ala Ala Ala Lys Ala Ser Ser Glu Val Asn Leu Ala Asn Leu
 80 85 90
 Pro Pro Ser Tyr His Asn Glu Thr Asn Thr Asp Thr Lys Val Gly
 95 100 105
 Asn Asn Thr Ile His Val His Arg Glu Ile His Lys Ile Thr Asn
 110 115 120
 Asn Gln Thr Gly Gln Met Val Phe Ser Glu Thr Val Ile Thr Ser
 125 130 135
 Val Gly Asp Glu Glu Gly Arg Arg Ser His Glu Cys Ile Ile Asp
 140 145 150
 Glu Asp Cys Gly Pro Ser Met Tyr Cys Gln Phe Ala Ser Phe Gln
 155 160 165
 Tyr Thr Cys Gln Pro Cys Arg Gly Gln Arg Met Leu Cys Thr Arg
 170 175 180
 Asp Ser Glu Cys Cys Gly Asp Gln Leu Cys Val Trp Gly His Cys
 185 190 195
 Thr Lys Met Ala Thr Arg Gly Ser Asn Gly Thr Ile Cys Asp Asn
 200 205 210
 Gln Arg Asp Cys Gln Pro Gly Leu Cys Cys Ala Phe Gln Arg Gly
 215 220 225
 Leu Leu Phe Pro Val Cys Thr Pro Leu Pro Val Glu Gly Glu Leu
 230 235 240
 Cys His Asp Pro Ala Ser Arg Leu Leu Asp Leu Ile Thr Trp Glu
 245 250 255

Leu Glu Pro Asp Gly Ala Leu Asp Arg Cys Pro Cys Ala Ser Gly
 260 265
 Leu Leu Cys Gln Pro His Ser His Ser Leu Val Tyr Val Cys Lys
 275 280
 Pro Thr Phe Val Gly Ser Arg Asp Gln Asp Gly Glu Ile Leu Leu
 290 295
 Pro Arg Glu Val Pro Asp Glu Tyr Glu Val Gly Ser Phe Met Glu
 305 310
 Glu Val Arg Gln Glu Leu Glu Asp Leu Glu Arg Ser Leu Thr Glu
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 Glu Met Ala Leu Gly Glu Pro Ala Ala Ala Ala Ala Ala Leu Leu
 335 340 345
 Gly Gly Glu Glu Ile
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 <211> 1650
 <212> DNA
 <213> Homosapiens

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<210> 52

<211> 452

<212> PRT

<213> Homosapiens

<400> 52

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			20					25					30	
Trp	Pro	Thr	Glu	Glu	Gly	Lys	Glu	Val	Trp	Asp	Tyr	Val	Thr	Val
			35					40					45	
Arg	Lys	Asp	Ala	Tyr	Met	Phe	Trp	Trp	Leu	Tyr	Tyr	Ala	Thr	Asn
			50						55				60	
Ser	Cys	Lys	Asn	Phe	Ser	Glu	Leu	Pro	Leu	Val	Met	Trp	Leu	Gln
			65						70				75	
Gly	Gly	Pro	Gly	Gly	Ser	Ser	Thr	Gly	Phe	Gly	Asn	Phe	Glu	Glu
			80						85				90	
Ile	Gly	Pro	Leu	Asp	Ser	Asp	Leu	Lys	Pro	Arg	Lys	Thr	Thr	Trp
			95						100				105	
Leu	Gln	Ala	Ala	Ser	Leu	Leu	Phe	Val	Asp	Asn	Pro	Val	Gly	Thr
			110						115				120	
Gly	Phe	Ser	Tyr	Val	Asn	Gly	Ser	Gly	Ala	Tyr	Ala	Lys	Asp	Leu
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Gln Glu

<210> 53
 <211> 1857
 <212> DNA
 <213> Homosapiens

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 agctgctcag gagcctggca acaagagcaa aactccagct caaaaaaaaa 1850
 aaaaaaa 1857

<210> 54
 <211> 299
 <212> PRT
 <213> Homosapiens

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 Ile Leu Ala Ile Leu Leu Cys Ser Leu Ala Leu Gly Ser Val Thr
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 35 40 45
 Val Lys Leu Ser Cys Ala Tyr Ser Gly Phe Ser Ser Pro Arg Val
 50 55 60
 Glu Trp Lys Phe Asp Gln Gly Asp Thr Thr Arg Leu Val Cys Tyr
 65 70 75
 Asn Asn Lys Ile Thr Ala Ser Tyr Glu Asp Arg Val Thr Phe Leu
 80 85 90
 Pro Thr Gly Ile Thr Phe Lys Ser Val Thr Arg Glu Asp Thr Gly
 95 100 105
 Thr Tyr Thr Cys Met Val Ser Glu Glu Gly Gly Asn Ser Tyr Gly
 110 115 120
 Glu Val Lys Val Lys Leu Ile Val Leu Val Pro Pro Ser Lys Pro
 125 130 135
 Thr Val Asn Ile Pro Ser Ser Ala Thr Ile Gly Asn Arg Ala Val
 140 145 150
 Leu Thr Cys Ser Glu Gln Asp Gly Ser Pro Pro Ser Glu Tyr Thr
 155 160 165
 Trp Phe Lys Asp Gly Ile Val Met Pro Thr Asn Pro Lys Ser Thr
 170 175 180

Arg	Ala	Phe	Ser	Asn	Ser	Ser	Tyr	Val	Leu	Asn	Pro	Thr	Thr	Gly	
				185					190					195	
Glu	Leu	Val	Phe	Asp	Pro	Leu	Ser	Ala	Ser	Asp	Thr	Gly	Glu	Tyr	
				200					205					210	
Ser	Cys	Glu	Ala	Arg	Asn	Gly	Tyr	Gly	Thr	Pro	Met	Thr	Ser	Asn	
				215					220					225	
Ala	Val	Arg	Met	Glu	Ala	Val	Glu	Arg	Asn	Val	Gly	Val	Ile	Val	
				230					235					240	
Ala	Ala	Val	Leu	Val	Thr	Leu	Ile	Leu	Leu	Gly	Ile	Leu	Val	Phe	
				245					250					255	
Gly	Ile	Trp	Phe	Ala	Tyr	Ser	Arg	Gly	His	Phe	Asp	Arg	Thr	Lys	
				260					265					270	
Lys	Gly	Thr	Ser	Ser	Lys	Lys	Val	Ile	Tyr	Ser	Gln	Pro	Ser	Ala	
				275					280					285	
Arg	Ser	Glu	Gly	Glu	Phe	Lys	Gln	Thr	Ser	Ser	Phe	Leu	Val		
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<210> 55
 <211> 1679
 <212> DNA
 <213> Homosapiens

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 aaaaatgcac aattctatct cttgggcaat cttcacgggg ctggctgctc 200
 tgtgtctctt ccaaggagtg cccgtgcgca gcggagatgc caccttcccc 250
 aaagctatgg acaacgtgac ggtccggcag ggggagagcg ccaccctcag 300
 gtgcactatt gacaaccggg tcaccggggt ggcttggtta aaccgcagca 350
 ccatcctcta tgctgggaat gacaagtggg gcctggatcc tcgcgtggtc 400
 cttctgagca acacccaac gcagtacagc atcgagatcc agaacttgga 450
 tgtgtatgac gagggccctt acacctgctc ggtgcagaca gacaaccacc 500
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 gagatttctt catgatctc cattaatgaa gggaacaata ttgacctcac 600
 ctgcatagca actggttagc cagagcctac ggttacttgg agacacatct 650
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 ggcatcaccc gggagcagtc aggggactac gagtgcagtg cctccaatga 750
 cgtggccgcy cccgtggtac ggagagtaaa ggtcacctgt aactatccac 800
 catacatctc agaagccaag ggtacaggtg tccccgtggg acaaaagggg 850


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Asn His Pro Lys Thr Ser Arg Val His Leu Ile Val Gln Val Ser
125 130
Pro Lys Ile Val Glu Ile Ser Ser Asp Ile Ser Ile Asn Glu Gly
140 145 150
Asn Asn Ile Ser Leu Thr Cys Ile Ala Thr Gly Arg Pro Glu Pro
155 160 165
Thr Val Thr Trp Arg His Ile Ser Pro Lys Ala Val Gly Phe Val
170 175 180
Ser Glu Asp Glu Tyr Leu Glu Ile Gln Gly Ile Thr Arg Glu Gln
185 190 195
Ser Gly Asp Tyr Glu Cys Ser Ala Ser Asn Asp Val Ala Ala Pro
200 205 210
Val Val Arg Arg Val Lys Val Thr Val Asn Tyr Pro Pro Tyr Ile
215 220 225
Ser Glu Ala Lys Gly Thr Gly Val Pro Val Gly Gln Lys Gly Thr
230 235 240
Leu Gln Cys Glu Ala Ser Ala Val Pro Ser Ala Glu Phe Gln Trp
245 250 255
Tyr Lys Asp Asp Lys Arg Leu Ile Glu Gly Lys Lys Gly Val Lys
260 265 270
Val Glu Asn Arg Pro Phe Leu Ser Lys Leu Ile Phe Phe Asn Val
275 280 285
Ser Glu His Asp Tyr Gly Asn Tyr Thr Cys Val Ala Ser Asn Lys
290 295 300
Leu Gly His Thr Asn Ala Ser Ile Met Leu Phe Gly Pro Gly Ala
305 310 315
Val Ser Glu Val Ser Asn Gly Thr Ser Arg Ala Gly Cys Val
320 325 330
Trp Leu Leu Pro Leu Leu Val Leu His Leu Leu Leu Lys Phe
335 340

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<210> 57
<211> 1777
<212> DNA
<213> Homosapiens

<220>
<221> unsure
<222> 439, 647
<223> unknown base

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gcgtgccagg ggccgcggcg cctgcggggc gaggctctgg acgccctgcg 150
gccctggggac ctgcgctgcc ctgggggacgc ggccgaggaa gaggaagagc 200

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tggaagagcg ggctgtggcc gggccccgcg cccctccgcg cgccctccg 250
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 gtgcgtcccc gagtcccggc acagcagctg cgagggtgc ggctgcagg 350
 cggtgccccc cggttcccc agcgacaccc agctcctgga cctgaggcg 400
 aaccacttcc cctcggtgcc ccgagcggcc ttccccgnc tgggccacct 450
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 cctcgtctgc ataggcctgc ggtctgaag gatggcttg cccgctcccg 1450
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 ggagcgagga gtcccagggc tgagcaaatg cagcggggag gtcggcagtt 1700
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 gagctgctct cactgccac actgctg 1777

<210> 58
 <211> 470
 <212> PRT
 <213> Homosapiens

<220>
 <221> unsure
 <222> 216
 <223> unknown amino acid

<400> 58
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 20 25 30
 Ser Asp Gly Ala Cys Gln Gly Pro Arg Arg Leu Arg Gly Glu Ala
 35 40 45
 Leu Asp Ala Leu Arg Pro Trp Asp Leu Arg Cys Pro Gly Asp Ala
 50 55 60
 Ala Gln Glu Glu Glu Glu Leu Glu Glu Arg Ala Val Ala Gly Pro
 65 70 75
 Arg Ala Pro Pro Arg Gly Pro Pro Arg Gly Pro Gly Glu Glu Arg
 80 85 90
 Ala Val Ala Pro Cys Pro Arg Ala Cys Val Cys Val Pro Glu Ser
 95 100 105
 Arg His Ser Ser Cys Glu Gly Cys Gly Leu Gln Ala Val Pro Arg
 110 115 120
 Gly Phe Pro Ser Asp Thr Gln Leu Leu Asp Leu Arg Arg Asn His
 125 130 135
 Phe Pro Ser Val Pro Arg Ala Ala Phe Pro Gly Leu Gly His Leu
 140 145 150
 Val Ser Leu His Leu Gln His Cys Gly Ile Ala Glu Leu Glu Ala
 155 160 165
 Gly Ala Leu Ala Gly Leu Gly Arg Leu Ile Tyr Leu Tyr Leu Ser
 170 175 180
 Asp Asn Gln Leu Ala Gly Leu Ser Ala Ala Leu Glu Gly Ala
 185 190 195
 Pro Arg Leu Gly Tyr Leu Tyr Leu Glu Arg Asn Arg Phe Leu Gln
 200 205 210
 Val Pro Gly Ala Ala Xaa Arg Ala Leu Pro Ser Leu Phe Ser Leu
 215 220 225
 His Leu Gln Asp Asn Ala Val Asp Arg Leu Ala Pro Gly Asp Leu
 230 235 240
 Gly Arg Thr Arg Ala Leu Arg Trp Val Tyr Leu Ser Gly Asn Arg
 245 250 255
 Ile Thr Glu Val Ser Leu Gly Ala Leu Gly Pro Ala Arg Glu Leu

	260		265		270
Glu Lys Leu His	Leu Asp Arg Asn Gln	Leu Arg Glu Val Pro	Thr		
	275		280		285
Gly Ala Leu Glu	Gly Leu Pro Ala Leu	Glu Glu Leu Gln Leu	Ser		
	290		295		300
Gly Asn Pro Leu	Arg Ala Leu Arg Asp	Gly Ala Phe Gln Pro	Val		
	305		310		315
Gly Arg Ser Leu	Gln His Leu Phe Leu	Asn Ser Ser Gly Leu	Glu		
	320		325		330
Gln Ile Cys Pro	Gly Ala Phe Ser Gly	Leu Gly Pro Gly Leu	Gln		
	335		340		345
Ser Leu His Leu	Gln Lys Asn Gln Leu	Arg Ala Leu Pro Ala	Leu		
	350		355		360
Pro Ser Leu Ser	Gln Leu Glu Leu Ile	Asp Leu Ser Ser Asn	Pro		
	365		370		375
Phe Pro Cys Asp	Cys Gln Leu Leu Pro	Leu His Arg Trp Leu	Thr		
	380		385		390
Gly Leu Asn Leu	Arg Val Gly Ala Thr	Cys Ala Thr Pro Pro	Asn		
	395		400		405
Ala Arg Gly Gln	Arg Val Lys Ala Ala	Ala Ala Val Phe Glu	Asp		
	410		415		420
Cys Pro Gly Trp	Ala Ala Arg Lys Ala	Lys Arg Thr Pro Ala	Ser		
	425		430		435
Arg Pro Ser Ala	Arg Arg Thr Pro Ile	Lys Gly Arg Gln Cys	Gly		
	440		445		450
Ala Asp Lys Asn	Ile Leu Phe Pro Thr	Trp Tyr His Thr Val	Glu		
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Pro Thr Ser Leu	Ser				
	470				

<210> 59
 <211> 2749
 <212> DNA
 <213> Homosapiens

<220>
 <221> unsure
 <222> 1869, 1887
 <223> unknown base

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 ctgaggggacc accggaagta ctggtgcagg aagggtggga tcctcttctc 200

tcgctgctct ggcaccatct atgcagaaga agaaggccag gagacaatga 250
 agggcaggggt gtccatccgt gacagccgcc aggagctctc gctcattgtg 300
 accctgtgga acctaccct gcaagacgct gggagtagct ggtgtggggg 350
 cgaaaaacgg ggcgccgatg agtctttact gatctctctg ttctctttc 400
 caggaccctg ctgtctctcc tccctttctc ccaccttcca gcctctggct 450
 acaacacgcc tgcagcccaa ggcaaaaget cagcaaaacc agccccagg 500
 attgacttct cctgggctct acccggcagc caccacagcc aagcagggga 550
 agacaggggc tgaggccctt ccattgccag ggacttccca gtacgggcac 600
 gaaaggactt ctcatgacac aggaacctct cctcaccag cgacctctcc 650
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 cacctcagcc tcagagtcca gctgcccga ctccagggt ctccccacc 1150
 tcccagggt ctctcttgc atgttccagc ctgacctaga agcgtttgtc 1200
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 ccagaccoca ccttgtcttc cctccctggc gtctcagac ttagtccac 1450
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<210> 60
 <211> 332
 <212> PRT
 <213> Homosapiens

<400> 60
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 Asp Thr Val Ser Leu Gln Cys Thr Tyr Arg Glu Glu Leu Arg Asp
 35 40 45
 His Arg Lys Tyr Trp Cys Arg Lys Gly Gly Ile Leu Phe Ser Arg
 50 55 60
 Cys Ser Gly Thr Ile Tyr Ala Glu Glu Glu Gly Gln Glu Thr Met
 65 70 75
 Lys Gly Arg Val Ser Ile Arg Asp Ser Arg Gln Glu Leu Ser Leu
 80 85 90
 Ile Val Thr Leu Trp Asn Leu Thr Leu Gln Asp Ala Gly Glu Tyr

	95	100	105
Trp Cys Gly Val	Glu Lys Arg Gly Pro Asp	Glu Ser Leu Leu Ile	110 115 120
Ser Leu Phe Val	Phe Pro Gly Pro Cys	Cys Pro Pro Ser Pro Ser	125 130 135
Pro Thr Phe Gln	Pro Leu Ala Thr Thr Arg	Leu Gln Pro Lys Ala	140 145 150
Lys Ala Gln Gln	Thr Gln Pro Pro Gly	Leu Thr Ser Pro Gly Leu	155 160 165
Tyr Pro Ala Ala	Thr Thr Ala Lys Gln Gly	Lys Thr Gly Ala Glu	170 175 180
Ala Pro Pro Leu	Pro Gly Thr Ser Gln Tyr	Gly His Glu Arg Thr	185 190 195
Ser Gln Tyr Thr	Gly Thr Ser Pro His	Pro Ala Thr Ser Pro Pro	200 205 210
Ala Gly Ser Ser	Arg Pro Pro Met Gln	Leu Asp Ser Thr Ser Ala	215 220 225
Glu Asp Thr Ser	Pro Ala Leu Ser Ser	Gly Ser Ser Lys Pro Arg	230 235 240
Val Ser Ile Pro	Met Val Arg Ile Leu	Ala Pro Val Leu Val Leu	245 250 255
Leu Ser Leu Leu	Ser Ala Ala Gly Leu	Ile Ala Phe Cys Ser His	260 265 270
Leu Leu Leu Trp	Arg Lys Glu Ala Gln	Gln Ala Thr Glu Thr Gln	275 280 285
Arg Asn Glu Lys	Phe Trp Leu Ser Arg	Leu Thr Ala Glu Glu Lys	290 295 300
Glu Ala Pro Ser	Gln Ala Pro Glu Gly	Asp Val Ile Ser Met Pro	305 310 315
Pro Leu His Thr	Ser Glu Glu Glu Leu	Gly Phe Ser Lys Phe Val	320 325 330

Ser Ala

<210> 61
 <211> 1572
 <212> DNA
 <213> Homosapiens

<400> 61
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 tgaaccacct gccagaagac atggagaacg ctctcaccgg gagccagagc 150
 tcccatgctt ctctgcgcaa tatccattcc atcaacccca cacaactcat 200

ggccaggatt gagtcctatg aaggaagga aaagaaagc atatctgatg 250
 tcaggaggac tttctgttg tttgtcacct ttgacctctt attcgttaaca 300
 ttactgtgga taatagagtt aaatgtgaat ggaggcattg agaacacatt 350
 agagaaggag gtgatgcagt atgactacta ttcttcatat ttgatataat 400
 ttctctcggc agtttttcga tttaaagtgt taatacttgc atatgctgtg 450
 tgcagactgc gccattggtg ggcaatagcg ttgacaacgg cagtgaccag 500
 tgccttttta ctagcaaaag tgatccttcc gaagcttttc tctcaagggg 550
 cttttggcta tgtgtgccc atcatttcat tcatccttgc ctggattgag 600
 acgtggttcc tggatttcaa agtggtacct caagaagcag aagaagaaaa 650
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 ttaaaatgaa ctaaatataa aa 1572

<210> 62
 <211> 234
 <212> PRT
 <213> Homosapiens

<400> 62
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Thr Gln Leu Met Ala Arg Ile Glu Ser Tyr Glu Gly Arg Glu Lys	35	40	45
Lys Gly Ile Ser Asp Val Arg Arg Thr Phe Cys Leu Phe Val Thr	50	55	60
Phe Asp Leu Leu Phe Val Thr Leu Leu Tyr Ile Ile Glu Leu Asn	65	70	75
Val Asn Gly Gly Ile Glu Asn Thr Leu Glu Lys Glu Val Met Gln	80	85	90
Tyr Asp Tyr Tyr Ser Ser Tyr Phe Asp Ile Phe Leu Leu Ala Val	95	100	105
Phe Arg Phe Lys Val Leu Ile Leu Ala Tyr Ala Val Cys Arg Leu	110	115	120
Arg His Trp Trp Ala Ile Ala Leu Thr Thr Ala Val Thr Ser Ala	125	130	135
Phe Leu Leu Ala Lys Val Ile Leu Ser Lys Leu Phe Ser Gln Gly	140	145	150
Ala Phe Gly Tyr Val Leu Pro Ile Ile Ser Phe Ile Leu Ala Trp	155	160	165
Ile Glu Thr Trp Phe Leu Asp Phe Lys Val Leu Pro Gln Glu Ala	170	175	180
Glu Glu Glu Asn Arg Leu Leu Ile Val Gln Asp Ala Ser Glu Arg	185	190	195
Ala Ala Leu Ile Pro Gly Gly Leu Ser Asp Gly Gln Phe Tyr Ser	200	205	210
Pro Pro Glu Ser Glu Ala Gly Ser Glu Glu Ala Glu Glu Lys Gln	215	220	225
Asp Ser Glu Lys Pro Leu Leu Glu Leu	230		

<210> 63
 <211> 2458
 <212> DNA
 <213> Homosapiens

<400> 63
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 ccagctcgcc cgaggtccgt cggaggcgccc cgccgccccc ggagccaagc 150
 agcaactgag cggggaagcg cccgcgtccg gggatcggga tgtccctcct 200
 ccttcctcct ttgctagttt cctactatgt tggaaccttg gggactcaca 250

ctgagatcaa	gagagtggca	gaggaaaaag	tcactttgcc	ctgccaccat	300
caactggggc	ttccagaaaa	agacactctg	gatattgaat	ggctgctcac	350
cgataatgaa	gggaaccaaa	aagtggtgat	cacttactcc	agtcgtcatg	400
tctacaataa	cttgactgag	gaacagaag	gccgagtggc	ctttgtcttc	450
aatttctctg	caggagatgc	ctccttgacg	attgaacctc	tgaagcccg	500
tgatgagggc	cggtacacct	gtaagggtaa	gaattcagg	cgctacgtgt	550
ggagccatgt	catcttaaaa	gtcttagtga	gaccatccaa	gcccaagtgt	600
gagttggaag	gagagctgac	agaaggaagt	gacctgactt	tgcagtgtga	650
gtcatcctct	ggcacagagc	ccattgtgta	ttactggcag	cgaatccgag	700
agaaagagg	agaggatgaa	cgtctgcctc	ccaaatctag	gattgactac	750
aaccaccctg	gacgagtctt	gctgcagaat	cttaccatgt	cctactctgg	800
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tcgcagtaac	tgtacagtat	gtacaaagca	tcggcatggt	tgcaggagca	900
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 <211> 373
 <212> PRT
 <213> Homosapiens

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 35 40 45
 Thr Leu Asp Ile Glu Trp Leu Leu Thr Asp Asn Glu Gly Asn Gln
 50 55 60
 Lys Val Val Ile Thr Tyr Ser Ser Arg His Val Tyr Asn Asn Leu
 65 70 75
 Thr Glu Glu Gln Lys Gly Arg Val Ala Phe Ala Ser Asn Phe Leu
 80 85 90
 Ala Gly Asp Ala Ser Leu Gln Ile Glu Pro Leu Lys Pro Ser Asp
 95 100 105
 Glu Gly Arg Tyr Thr Cys Lys Val Lys Asn Ser Gly Arg Tyr Val
 110 115 120
 Trp Ser His Val Ile Leu Lys Val Leu Val Arg Pro Ser Lys Pro
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 Lys Cys Glu Leu Glu Gly Glu Leu Thr Glu Gly Ser Asp Leu Thr
 140 145 150
 Leu Gln Cys Glu Ser Ser Ser Gly Thr Glu Pro Ile Val Tyr Tyr

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Pro Lys Ser Arg	Ile Asp Tyr Asn His	Pro Gly Arg Val Leu	Leu		
	185	190	195		
Gln Asn Leu Thr	Met Ser Tyr Ser Gly	Leu Tyr Gln Cys Thr	Ala		
	200	205	210		
Gly Asn Glu Ala	Gly Lys Glu Ser Cys	Val Val Arg Val Thr	Val		
	215	220	225		
Gln Tyr Val Gln	Ser Ile Gly Met Val	Ala Gly Ala Val Thr	Gly		
	230	235	240		
Ile Val Ala Gly	Ala Leu Leu Ile Phe	Leu Leu Val Trp Leu	Leu		
	245	250	255		
Ile Arg Arg Lys	Asp Lys Glu Arg Tyr	Glu Glu Glu Glu Arg	Pro		
	260	265	270		
Asn Glu Ile Arg	Glu Asp Ala Glu Ala	Pro Lys Ala Arg Leu	Val		
	275	280	285		
Lys Pro Ser Ser	Ser Ser Ser Gly Ser	Arg Ser Ser Arg Ser	Gly		
	290	295	300		
Ser Ser Ser Thr	Arg Ser Thr Ala Asn	Ser Ala Ser Arg Ser	Gln		
	305	310	315		
Arg Thr Leu Ser	Thr Asp Ala Ala Pro	Gln Pro Gly Leu Ala	Thr		
	320	325	330		
Gln Ala Tyr Ser	Leu Val Gly Pro Glu	Val Arg Gly Ser Glu	Pro		
	335	340	345		
Lys Lys Val His	His Ala Asn Leu Thr	Lys Ala Glu Thr Thr	Pro		
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 <212> DNA
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<210> 66
 <211> 253
 <212> PRT
 <213> Homosapiens

<400> 66
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Gly Ala Tyr Val Phe Ile Thr Tyr Asp Tyr Asp His Phe Phe	35	40	45
Glu Asp Val Tyr Thr Leu Ile Pro Ala Val Val Ile Ile Ala Val	50	55	60
Gly Ala Leu Leu Phe Ile Ile Gly Leu Ile Gly Cys Cys Ala Thr	65	70	75
Ile Arg Glu Ser Arg Cys Gly Leu Ala Thr Phe Val Ile Ile Leu	80	85	90
Leu Leu Val Phe Val Thr Glu Val Val Val Val Val Leu Gly Tyr	95	100	105
Val Tyr Arg Ala Lys Val Glu Asn Glu Val Asp Arg Ser Ile Gln	110	115	120
Lys Val Tyr Lys Thr Tyr Asn Gly Thr Asn Pro Asp Ala Ala Ser	125	130	135
Arg Ala Ile Asp Tyr Val Gln Arg Gln Leu His Cys Cys Gly Ile	140	145	150
His Asn Tyr Ser Asp Trp Glu Asn Thr Asp Trp Phe Lys Glu Thr	155	160	165
Lys Asn Gln Ser Val Pro Leu Ser Cys Cys Arg Glu Thr Ala Ser	170	175	180
Asn Cys Asn Gly Ser Leu Ala His Pro Ser Asp Leu Tyr Ala Glu	185	190	195
Gly Cys Glu Ala Leu Val Val Lys Lys Leu Gln Glu Ile Met Met	200	205	210
His Val Ile Trp Ala Ala Leu Ala Phe Ala Ala Ile Gln Leu Leu	215	220	225
Gly Met Leu Cys Ala Cys Ile Val Leu Cys Arg Arg Ser Arg Asp	230	235	240
Pro Ala Tyr Glu Leu Leu Ile Thr Gly Gly Thr Tyr Ala	245	250	

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 <211> 963
 <212> DNA
 <213> Homosapiens

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<210> 68
<211> 235
<212> PRT
<213> Homosapiens

<400> 68
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 35     40
Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
 50     55
Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
 65     70
Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile
 80     85
Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
 95    100
Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
110    115
Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser

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	125		130		135
Gly Pro Met Thr	Lys Phe Ile Gln Ser	Ala Ala Pro Lys Ser	Leu		
	140		145		150
Leu Phe Met Val	Thr Tyr Asp Asp Gly	Ser Thr Arg Leu Asn	Asn		
	155		160		165
Asp Ala Lys Asn	Ala Ile Glu Ala Leu	Gly Ser Lys Glu Ile	Arg		
	170		175		180
Asn Met Lys Phe	Arg Ser Ser Trp Val	Phe Ile Ala Ala Lys	Gly		
	185		190		195
Leu Glu Leu Pro	Ser Glu Ile Gln Arg	Glu Lys Ile Asn His	Ser		
	200		205		210
Asp Ala Lys Asn	Asn Arg Tyr Ser Gly	Trp Pro Ala Glu Ile	Gln		
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Ile Glu Gly Cys	Ile Pro Lys Glu Arg	Ser			
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<210> 69

<211> 1091

<212> DNA

<213> Homosapiens

<400> 69

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<210> 70
<211> 206
<212> PRT
<213> Homosapiens
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				20					25					30	
Ile	Leu	Tyr	Ser	His	Val	Val	Lys	Pro	Val	Pro	Ala	His	Pro	Ser	
				35					40					45	
Ser	Asn	Ser	Thr	Leu	Asn	Gln	Ala	Arg	Asn	Gly	Gly	Arg	His	Phe	
				50					55					60	
Ser	Asn	Thr	Gly	Leu	Asp	Arg	Asn	Thr	Arg	Val	Gln	Val	Gly	Cys	
				65					70					75	
Arg	Glu	Leu	Arg	Ser	Thr	Lys	Tyr	Ile	Ser	Asp	Gly	Gln	Cys	Thr	
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Ser	Ile	Ser	Pro	Leu	Lys	Glu	Leu	Val	Cys	Ala	Gly	Glu	Cys	Leu	
				95					100					105	
Pro	Leu	Pro	Val	Leu	Pro	Asn	Trp	Ile	Gly	Gly	Gly	Tyr	Gly	Thr	
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Lys	Tyr	Trp	Ser	Arg	Arg	Ser	Ser	Gln	Glu	Trp	Arg	Cys	Val	Asn	
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Asp	Lys	Thr	Arg	Thr	Gln	Arg	Ile	Gln	Leu	Gln	Cys	Gln	Asp	Gly	
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Ser	Thr	Arg	Thr	Tyr	Lys	Ile	Thr	Val	Val	Thr	Ala	Cys	Lys	Cys	
				155					160					165	
Lys	Arg	Tyr	Thr	Arg	Gln	His	Asn	Glu	Ser	Ser	His	Asn	Phe	Glu	
				170					175					180	
Ser	Met	Ser	Pro	Ala	Lys	Pro	Val	Gln	His	His	Arg	Glu	Arg	Lys	
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Arg	Ala	Ser	Lys	Ser	Ser	Lys	His	Ser	Met	Ser					
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<210> 71
<211> 999
<212> DNA
<213> Homosapiens
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<210> 72
 <211> 260
 <212> PRT
 <213> Homosapiens

<400> 72
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 Asp Lys Val Leu Gly Gly His Glu Cys Gln Pro His Ser Gln Pro
 35 40 45
 Trp Gln Ala Ala Leu Phe Gln Gly Gln Gln Leu Leu Cys Gly Gly
 50 55 60
 Val Leu Val Gly Gly Asn Trp Val Leu Thr Ala Ala His Cys Lys
 65 70 75
 Lys Pro Lys Tyr Thr Val Arg Leu Gly Asp His Ser Leu Gln Asn

80										85				90			
Lys	Asp	Gly	Pro	Glu	Gln	Glu	Ile	Pro	Val	Val	Gln	Ser	Ile	Pro			
				95					100					105			
His	Pro	Cys	Tyr	Asn	Ser	Ser	Asp	Val	Glu	Asp	His	Asn	His	Asp			
				110					115					120			
Leu	Met	Leu	Leu	Gln	Leu	Arg	Asp	Gln	Ala	Ser	Leu	Gly	Ser	Lys			
				125					130					135			
Val	Lys	Pro	Ile	Ser	Leu	Ala	Asp	His	Cys	Thr	Gln	Pro	Gly	Gln			
				140					145					150			
Lys	Cys	Thr	Val	Ser	Gly	Trp	Gly	Thr	Val	Thr	Ser	Pro	Arg	Glu			
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Gln	Lys	Lys	Cys	Glu	Asp	Ala	Tyr	Pro	Gly	Gln	Ile	Thr	Asp	Gly			
				185					190					195			
Met	Val	Cys	Ala	Gly	Ser	Ser	Lys	Gly	Ala	Asp	Thr	Cys	Gln	Gly			
				200					205					210			
Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Asp	Gly	Ala	Leu	Gln	Gly	Ile			
				215					220					225			
Thr	Ser	Trp	Gly	Ser	Asp	Pro	Cys	Gly	Arg	Ser	Asp	Lys	Pro	Gly			
				230					235					240			
Val	Tyr	Thr	Asn	Ile	Cys	Arg	Tyr	Leu	Asp	Trp	Ile	Lys	Lys	Ile			
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<210> 73

<211> 3906

<212> DNA

<213> Homosapiens

<400> 73

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<211> 867

<212> PRT

<213> Homosapiens

<400> 74

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Leu	Lys	Gly	Arg	Phe	Gln	Arg	Asp	Arg	Arg	Asn	Ile	Arg	Pro	Asn	35	40	45	
Ile	Ile	Leu	Val	Leu	Thr	Asp	Asp	Gln	Asp	Val	Glu	Leu	Gly	Ser	50	55	60	
Met	Gln	Val	Met	Asn	Lys	Thr	Arg	Arg	Ile	Met	Glu	Gln	Gly	Gly	65	70	75	
Ala	His	Phe	Ile	Asn	Ala	Phe	Val	Thr	Thr	Pro	Met	Cys	Cys	Pro	80	85	90	
Ser	Arg	Ser	Ser	Ile	Leu	Thr	Gly	Lys	Tyr	Val	His	Asn	His	Asn	95	100	105	
Thr	Tyr	Thr	Asn	Asn	Glu	Asn	Cys	Ser	Ser	Pro	Ser	Trp	Gln	Ala	110	115	120	
Gln	His	Glu	Ser	Arg	Thr	Phe	Ala	Val	Tyr	Leu	Asn	Ser	Thr	Gly	125	130	135	
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Asn	Ser	Arg	Phe	Tyr	Asn	Tyr	Thr	Leu	Cys	Arg	Asn	Gly	Val	Lys	170	175	180	
Glu	Lys	His	Gly	Ser	Asp	Tyr	Ser	Lys	Asp	Tyr	Leu	Thr	Asp	Leu	185	190	195	
Ile	Thr	Asn	Asp	Ser	Val	Ser	Phe	Phe	Arg	Thr	Ser	Lys	Lys	Met	200	205	210	
Tyr	Pro	His	Arg	Pro	Val	Leu	Met	Val	Ile	Ser	His	Ala	Ala	Pro	215	220	225	
His	Gly	Pro	Glu	Asp	Ser	Ala	Pro	Gln	Tyr	Ser	Arg	Leu	Phe	Pro	230	235	240	

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Pro	Asp	Lys	His	Trp	Ile	Met	Arg	Tyr	Thr	Gly	Pro	Met	Lys	Pro
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Ile	His	Met	Glu	Phe	Thr	Asn	Met	Leu	Gln	Arg	Lys	Arg	Leu	Gln
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Thr	Leu	Met	Ser	Val	Asp	Asp	Ser	Met	Glu	Thr	Ile	Tyr	Asn	Met
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Leu	Val	Glu	Thr	Gly	Glu	Leu	Asp	Asn	Thr	Tyr	Ile	Val	Tyr	Thr
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Ala	Asp	His	Gly	Tyr	His	Ile	Gly	Gln	Phe	Gly	Leu	Val	Lys	Gly
				320					325					330
Lys	Ser	Met	Pro	Tyr	Glu	Phe	Asp	Ile	Arg	Val	Pro	Phe	Tyr	Val
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Arg	Gly	Pro	Asn	Val	Glu	Ala	Gly	Cys	Leu	Asn	Pro	His	Ile	Val
				350					355					360
Leu	Asn	Ile	Asp	Leu	Ala	Pro	Thr	Ile	Leu	Asp	Ile	Ala	Gly	Leu
				365					370					375
Asp	Ile	Pro	Ala	Asp	Met	Asp	Gly	Lys	Ser	Ile	Leu	Lys	Leu	Leu
				380					385					390
Asp	Thr	Glu	Arg	Pro	Val	Asn	Arg	Phe	His	Leu	Lys	Lys	Lys	Met
				395					400					405
Arg	Val	Trp	Arg	Asp	Ser	Phe	Leu	Val	Glu	Arg	Gly	Lys	Leu	Leu
				410					415					420
His	Lys	Arg	Asp	Asn	Asp	Lys	Val	Asp	Ala	Gln	Glu	Glu	Asn	Phe
				425					430					435
Leu	Pro	Lys	Tyr	Gln	Arg	Val	Lys	Asp	Leu	Cys	Gln	Arg	Ala	Glu
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Tyr	Gln	Thr	Ala	Cys	Glu	Gln	Leu	Gly	Gln	Lys	Trp	Gln	Cys	Val
				455					460					465
Glu	Asp	Ala	Thr	Gly	Lys	Leu	Lys	Leu	His	Lys	Cys	Lys	Gly	Pro
				470					475					480
Met	Arg	Leu	Gly	Gly	Ser	Arg	Ala	Leu	Ser	Asn	Leu	Val	Pro	Lys
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Tyr	Tyr	Gly	Gln	Gly	Ser	Glu	Ala	Cys	Thr	Cys	Asp	Ser	Gly	Asp
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Tyr	Lys	Leu	Ser	Leu	Ala	Gly	Arg	Arg	Lys	Lys	Leu	Phe	Lys	Lys
				515					520					525
Lys	Tyr	Lys	Ala	Ser	Tyr	Val	Arg	Ser	Arg	Ser	Ile	Arg	Ser	Val
				530					535					540
Ala	Ile	Glu	Val	Asp	Gly	Arg	Val	Tyr	His	Val	Gly	Leu	Gly	Asp
				545					550					555

Ala	Ala	Gln	Pro	Arg	Asn	Leu	Thr	Lys	Arg	His	Trp	Pro	Gly	Ala	
				560					565					570	
Pro	Glu	Asp	Gln	Asp	Asp	Lys	Asp	Gly	Gly	Asp	Phe	Ser	Gly	Thr	
				575					580					585	
Gly	Gly	Leu	Pro	Asp	Tyr	Ser	Ala	Ala	Asn	Pro	Ile	Lys	Val	Thr	
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His	Arg	Cys	Tyr	Ile	Leu	Glu	Asn	Asp	Thr	Val	Gln	Cys	Asp	Leu	
				605					610					615	
Asp	Leu	Tyr	Lys	Ser	Leu	Gln	Ala	Trp	Lys	Asp	His	Lys	Leu	His	
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Ile	Asp	His	Glu	Ile	Glu	Thr	Leu	Gln	Asn	Lys	Ile	Lys	Asn	Leu	
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Arg	Glu	Val	Arg	Gly	His	Leu	Lys	Lys	Lys	Arg	Pro	Glu	Glu	Cys	
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Asp	Cys	His	Lys	Ile	Ser	Tyr	His	Thr	Gln	His	Lys	Gly	Arg	Leu	
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Lys	His	Arg	Gly	Ser	Ser	Leu	His	Pro	Phe	Arg	Lys	Gly	Leu	Gln	
				680					685					690	
Glu	Lys	Asp	Lys	Val	Trp	Leu	Leu	Arg	Glu	Gln	Lys	Arg	Lys	Lys	
				695					700					705	
Lys	Leu	Arg	Lys	Leu	Leu	Lys	Arg	Leu	Gln	Asn	Asn	Asp	Thr	Cys	
				710					715					720	
Ser	Met	Pro	Gly	Leu	Thr	Cys	Phe	Thr	His	Asp	Asn	Gln	His	Trp	
				725					730					735	
Gln	Thr	Ala	Pro	Phe	Trp	Thr	Leu	Gly	Pro	Phe	Cys	Ala	Cys	Thr	
				740					745					750	
Ser	Ala	Asn	Asn	Asn	Thr	Tyr	Trp	Cys	Met	Arg	Thr	Ile	Asn	Glu	
				755					760					765	
Thr	His	Asn	Phe	Leu	Phe	Cys	Glu	Phe	Ala	Thr	Gly	Phe	Leu	Glu	
				770					775					780	
Tyr	Phe	Asp	Leu	Asn	Thr	Asp	Pro	Tyr	Gln	Leu	Met	Asn	Ala	Val	
				785					790					795	
Asn	Thr	Leu	Asp	Arg	Asp	Val	Leu	Asn	Gln	Leu	His	Val	Gln	Leu	
				800					805					810	
Met	Glu	Leu	Arg	Ser	Cys	Lys	Gly	Tyr	Lys	Gln	Cys	Asn	Pro	Arg	
				815					820					825	
Thr	Arg	Asn	Met	Asp	Leu	Asp	Gly	Gly	Ser	Tyr	Glu	Gln	Tyr	Arg	
				830					835					840	
Gln	Phe	Gln	Arg	Arg	Lys	Trp	Pro	Glu	Met	Lys	Arg	Pro	Ser	Ser	
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Lys	Ser	Leu	Gly	Gln	Leu	Trp	Glu	Gly	Trp	Glu	Gly				
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 <213> Homosapiens

<400> 76
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 Thr Ser Asp Val Gly Ser Tyr Ile Cys Leu Val Lys Asn Thr Val
 50 55 60
 Thr Asn Ala Arg Val Leu Ser Pro Pro Thr Pro Leu Thr Leu Arg
 65 70 75
 Asn Asp Gly Val Met Gly Glu Tyr Glu Pro Lys Ile Glu Val His
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 Phe Pro Phe Thr Val Thr Ala Ala Lys Gly Thr Thr Val Lys Met
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 Glu Cys Phe Ala Leu Gly Asn Pro Val Pro Thr Ile Thr Trp Met
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 Lys Val Asn Gly Tyr Ile Pro Ser Lys Ala Arg Leu Arg Lys Ser
 125 130 135
 Gln Ala Val Leu Glu Ile Pro Asn Val Glu Leu Asp Asp Ala Gly
 140 145 150
 Ile Tyr Glu Cys Arg Ala Glu Asn Ser Arg Gly Lys Asn Ser Phe
 155 160 165
 Arg Gly Gln Leu Gln Val Tyr Thr Tyr Pro His Trp Val Glu Lys
 170 175 180
 Leu Asn Asp Thr Gln Leu Asp Ser Gly Ser Pro Leu Arg Trp Glu
 185 190 195
 Cys Lys Ala Thr Gly Lys Pro Arg Pro Thr Tyr Arg Trp Leu Lys
 200 205 210
 Asn Gly Val Pro Leu Ser Pro Gln Ser Arg Val Glu Met Val Asn
 215 220 225
 Gly Val Leu Met Ile His Asn Val Asn Gln Ser Asp Ala Gly Met
 230 235 240
 Tyr Gln Cys Leu Ala Glu Asn Lys Tyr Gly Ala Ile Tyr Ala Ser
 245 250 255
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 260 265 270
 Gln Leu Lys Lys Thr Ile Ile Val Thr Lys Asp Gln Glu Val Val
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Ala Ile Lys Gly	Val His Ser Val Arg	Tyr	Leu Cys Met Gly	Ala	
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Asp Gly Lys Met	Gln Gly Leu Leu Gln	Tyr	Ser Glu Glu Asp	Cys	
	110		115		120
Ala Phe Glu Glu	Glu Ile Arg Pro Asp	Gly	Tyr Asn Val Tyr	Arg	
	125		130		135
Ser Glu Lys His	Arg Leu Pro Val Ser	Leu	Ser Ser Ala Lys	Gln	
	140		145		150
Arg Gln Leu Tyr	Lys Asn Arg Gly Phe	Leu	Pro Leu Ser His	Phe	
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Leu Pro Met Leu	Pro Met Val Pro Glu	Glu	Pro Glu Asp Leu	Arg	
	170		175		180
Gly His Leu Glu	Ser Asp Met Phe Ser	Ser	Pro Leu Glu Thr	Asp	
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<211> 3240

<212> DNA

<213> Homosapiens

<400> 79

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<212> PRT

<213> Homosapiens

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Pro	Pro	Ala	Val	Leu	Leu	Glu	Val	Gln	Gly	Thr	Leu	Gln	Arg
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Leu	Val	Arg	Asp	Ser	Arg	Thr	Ser	Pro	Ala	Asn	Cys	Thr	Trp
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Ile	Leu	Gly	Ser	Lys	Glu	Gln	Thr	Val	Thr	Ile	Arg	Phe	Gln
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Leu	His	Leu	Ala	Cys	Gly	Ser	Glu	Arg	Leu	Thr	Leu	Arg	Ser
				80					85				90

Leu	Gln	Pro	Leu	Ile	Ser	Leu	Cys	Glu	Ala	Pro	Pro	Ser	Pro	Leu	95	100	105
Gln	Leu	Pro	Gly	Gly	Asn	Val	Thr	Ile	Thr	Tyr	Ser	Tyr	Ala	Gly	110	115	120
Ala	Arg	Ala	Pro	Met	Gly	Gln	Gly	Phe	Leu	Leu	Ser	Tyr	Ser	Gln	125	130	135
Asp	Trp	Leu	Met	Cys	Leu	Gln	Glu	Glu	Phe	Gln	Cys	Leu	Asn	His	140	145	150
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Pro	Glu	Ser	Ser	Arg	Leu	Leu	Arg	Ser	Leu	Thr	His	Phe	Ser	Asn	260	265	270
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Glu Val Tyr Asp Leu Met Arg Gln Cys Thr Arg Glu Lys Pro Tyr		
1070	1075	1080
Glu Arg Pro Ser Phe Ala Gln Ile Leu Val Ser Leu Asn Arg Met		
1085	1090	1095
Leu Glu Glu Arg Lys Thr Tyr Val Asn Thr Thr Leu Tyr Glu Lys		
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Phe Thr Tyr Ala Gly Ile Asp Cys Ser Ala Glu Glu Ala Ala		
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<210> 83
 <211> 1964
 <212> DNA
 <213> Homosapiens

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 ccgcggcggt ggtgtcagcc ggggggcggt cggacggcgg taattttctg 250
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 tggacagtgc tgggtgtgtg acagatatgg aaatgaagtc atgggatcca 1250
 gaataaatgg tgtgcagat tgtgctatag attttgagat ctccggagat 1300
 tttgctagtg gcgattttca tgaatggact gatgatgagg atgatgaaga 1350
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<210> 84
 <211> 436
 <212> PRT
 <213> Homosapiens

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 Gly Arg Ser Asp Gly Gly Asn Phe Leu Asp Asp Lys Gln Trp Leu
 35 40 45
 Thr Thr Ile Ser Gln Tyr Asp Lys Glu Val Gly Gln Trp Asn Lys
 50 55 60

Phe Arg Asp Glu Val Glu Asp Asp Tyr	Phe Arg Thr Trp Ser Pro
65	70 75
Gly Lys Pro Phe Asp Gln Ala Leu Asp	Pro Ala Lys Asp Pro Cys
80	85 90
Leu Lys Met Lys Cys Ser Arg His Lys	Val Cys Ile Ala Gln Asp
95	100 105
Ser Gln Thr Ala Val Cys Ile Ser His	Arg Arg Leu Thr His Arg
110	115 120
Met Lys Glu Ala Gly Val Asp His Arg	Gln Trp Arg Gly Pro Ile
125	130 135
Leu Ser Thr Cys Lys Gln Cys Pro Val	Val Tyr Pro Ser Pro Val
140	145 150
Cys Gly Ser Asp Gly His Thr Tyr Ser	Phe Gln Cys Lys Leu Glu
155	160 165
Tyr Gln Ala Cys Val Leu Gly Lys Gln	Ile Ser Val Lys Cys Glu
170	175 180
Gly His Cys Pro Cys Pro Ser Asp Lys	Pro Thr Ser Thr Ser Arg
185	190 195
Asn Val Lys Arg Ala Cys Ser Asp Leu	Glu Phe Arg Glu Val Ala
200	205 210
Asn Arg Leu Arg Asp Trp Phe Lys Ala	Leu His Glu Ser Gly Ser
215	220 225
Gln Asn Lys Lys Thr Lys Thr Leu Leu	Arg Pro Glu Arg Ser Arg
230	235 240
Phe Asp Thr Ser Ile Leu Pro Ile Cys	Lys Asp Ser Leu Gly Trp
245	250 255
Met Phe Asn Arg Leu Asp Thr Asn Tyr	Asp Leu Leu Leu Asp Gln
260	265 270
Ser Glu Leu Arg Ser Ile Tyr Leu Asp	Lys Asn Glu Gln Cys Thr
275	280 285
Lys Ala Phe Phe Asn Ser Cys Asp Thr	Tyr Lys Asp Ser Leu Ile
290	295 300
Ser Asn Asn Glu Trp Cys Tyr Cys Phe	Gln Arg Gln Gln Asp Pro
305	310 315
Pro Cys Gln Thr Glu Leu Ser Asn Ile	Gln Lys Arg Gln Gly Val
320	325 330
Lys Lys Leu Leu Gly Gln Tyr Ile Pro	Leu Cys Asp Glu Asp Gly
335	340 345
Tyr Tyr Lys Pro Thr Gln Cys His Gly	Ser Val Gly Gln Cys Trp
350	355 360
Cys Val Asp Arg Tyr Gly Asn Glu Val	Met Gly Ser Arg Ile Asn
365	370 375

Gly	Val	Ala	Asp	Cys	Ala	Ile	Asp	Phe	Glu	Ile	Ser	Gly	Asp	Phe
				380					385					390
Ala	Ser	Gly	Asp	Phe	His	Glu	Trp	Thr	Asp	Asp	Glu	Asp	Asp	Glu
				395					400					405
Asp	Asp	Ile	Met	Asn	Asp	Glu	Asp	Glu	Ile	Glu	Asp	Asp	Asp	Glu
				410					415					420
Asp	Glu	Gly	Asp	Asp	Asp	Asp	Gly	Gly	Asp	Asp	His	Asp	Val	Tyr
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Ile

<210> 85
 <211> 1832
 <212> DNA
 <213> Homosapiens

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 tccggccggc ctttaagggcc ctcggcagcc tacacttgcc aaccaacccc 150
 acatccctcc cggctgtagc caagaactat tcggttctct acttccaaca 200
 gaaggttgat ctttttgat ttaatactgt gaaaactttt aatcagcggt 250
 acctagttagc tgataaatat tggagaagaaa atgggtggatc aatacttttc 300
 tacactggta atgaagggga cattatctgg ttttgtaata acacgggggtt 350
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 atcgatacta tggagagtct ctcccctttg gtgacaactc attcaaggat 450
 tccagacact tgaatttcct gacatcagaa caagctctgg ctgattttgc 500
 agagttaatc aaacacttga aaagaacaat ccaggagact gaaaatcaac 550
 ctgtcattgc cataggaggc tcctatgggtg gcatgcttgc gcctctggtt 600
 aggatgaaat atcctcatat ggtagtggga gctcttgacg cttctgcccc 650
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 gtggcttact ggagcccttc acttatgcag cccattaact tctcaggaca 850
 tccaacattt gaaagactgg atctctgaaa cctgggtgaa tctgggcaatg 900
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 tttctgggtt tctcactgtc ctttgacca cgtctaggaa gaatcttctt 1750
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<210> 86

<211> 496

<212> PRT

<213> Homosapiens

<400> 86

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				20					25				Gly
Ser	Leu	His	Leu	Pro	Thr	Asn	Pro	Thr	Ser	Leu	Pro	Ala	Val
				35					40				45
Lys	Asn	Tyr	Ser	Val	Leu	Tyr	Phe	Gln	Gln	Lys	Val	Asp	His
				50					55				Phe
Gly	Phe	Asn	Thr	Val	Lys	Thr	Phe	Asn	Gln	Arg	Tyr	Leu	Val
				65					70				75
Asp	Lys	Tyr	Trp	Lys	Lys	Asn	Gly	Gly	Ser	Ile	Leu	Phe	Tyr
				80					85				90
Gly	Asn	Glu	Gly	Asp	Ile	Ile	Trp	Phe	Cys	Asn	Asn	Thr	Gly
				95					100				Phe
Met	Trp	Asp	Val	Ala	Glu	Glu	Leu	Lys	Ala	Met	Leu	Val	Phe
				110					115				120
Glu	His	Arg	Tyr	Tyr	Gly	Glu	Ser	Leu	Pro	Phe	Gly	Asp	Asn
													Ser

	125		130		135
Phe Lys Asp Ser	Arg His Leu Asn Phe	Leu Thr Ser Glu Gln Ala			
	140	145			150
Leu Ala Asp Phe	Ala Glu Leu Ile Lys	His Leu Lys Arg Thr Ile			
	155	160			165
Pro Gly Ala Glu	Asn Gln Pro Val Ile	Ala Ile Gly Gly Ser Tyr			
	170	175			180
Gly Gly Met Leu	Ala Ala Trp Phe Arg	Met Lys Tyr Pro His Met			
	185	190			195
Val Val Gly Ala	Leu Ala Ala Ser Ala	Pro Ile Trp Gln Phe Glu			
	200	205			210
Asp Leu Val Pro	Cys Gly Val Phe Met	Lys Ile Val Thr Thr Asp			
	215	220			225
Phe Arg Lys Ser	Gly Pro His Cys Ser	Glu Ser Ile His Arg Ser			
	230	235			240
Trp Asp Ala Ile	Asn Arg Leu Ser Asn Thr	Gly Ser Gly Leu Gln			
	245	250			255
Trp Leu Thr Gly	Ala Leu His Leu Cys Ser	Pro Leu Thr Ser Gln			
	260	265			270
Asp Ile Gln His	Leu Lys Asp Trp Ile Ser	Glu Thr Trp Val Asn			
	275	280			285
Leu Ala Met Val	Asp Tyr Pro Tyr Ala Ser	Asn Phe Leu Gln Pro			
	290	295			300
Leu Pro Ala Trp	Pro Ile Lys Val Val Cys	Gln Tyr Leu Lys Asn			
	305	310			315
Pro Asn Val Ser	Asp Ser Leu Leu Leu Gln	Asn Ile Phe Gln Ala			
	320	325			330
Leu Asn Val Tyr	Tyr Asn Tyr Ser Gly Gln	Val Lys Cys Leu Asn			
	335	340			345
Ile Ser Glu Thr	Ala Thr Ser Ser Leu Gly	Thr Leu Gly Trp Ser			
	350	355			360
Tyr Gln Ala Cys	Thr Glu Val Val Met Pro	Phe Cys Thr Asn Gly			
	365	370			375
Val Asp Asp Met	Phe Glu Pro His Ser Trp	Asn Leu Lys Glu Leu			
	380	385			390
Ser Asp Asp Cys	Phe Gln Gln Trp Gly Val	Arg Pro Arg Pro Ser			
	395	400			405
Trp Ile Thr Thr	Met Tyr Gly Gly Lys Asn	Ile Ser Ser His Thr			
	410	415			420
Asn Ile Val Phe	Ser Asn Gly Glu Leu Asp	Pro Trp Ser Gly Gly			
	425	430			435
Gly Val Thr Lys	Asp Ile Thr Asp Thr Leu	Val Ala Val Thr Ile			

	440		445		450
Ser Glu Gly Ala	His His Leu Asp Leu Arg Thr Lys Asn Ala Leu				
	455		460		465
Asp Pro Met Ser	Val Leu Leu Ala Arg Ser Leu Glu Val Arg His				
	470		475		480
Met Lys Asn Trp	Ile Arg Asp Phe Tyr Asp Ser Ala Gly Lys Gln				
	485		490		495

His

<210> 87
 <211> 1894
 <212> DNA
 <213> Homosapiens

<400> 87
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 aaaattaaaa aaggacacaa gtgcgaatgt taaatcagct ggagaaggag 1100

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 taactttcct tccacaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1894

<210> 88
 <211> 472
 <212> PRT
 <213> Homosapiens

<400> 88
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 Leu Leu Lys Thr Thr Ala Gly Asp Ile Asp Ile Glu Leu Trp Ser
 20 25 30
 Lys Glu Ala Pro Lys Ala Cys Arg Asn Phe Ile Gln Leu Cys Leu
 35 40 45
 Glu Ala Tyr Tyr Asp Asn Thr Ile Phe His Arg Val Val Pro Gly
 50 55 60
 Phe Ile Val Gln Gly Gly Asp Pro Thr Gly Thr Gly Ser Gly Gly
 65 70 75
 Glu Ser Ile Tyr Gly Ala Pro Phe Lys Asp Glu Phe His Ser Arg
 80 85 90
 Leu Arg Phe Asn Arg Arg Gly Leu Val Ala Met Ala Asn Ala Gly
 95 100 105
 Ser His Asp Asn Gly Ser Gln Phe Phe Thr Leu Gly Arg Ala
 110 115 120
 Asp Glu Leu Asn Asn Lys His Thr Ile Phe Gly Lys Val Thr Gly

125				130				135			
Asp Thr Val Tyr	Asn Met Leu Arg Leu	Ser Glu Val Asp Ile	Asp	140	145	150					
Asp Asp Glu Arg	Pro His Asn Pro His	Lys Ile Lys Ser Cys	Glu	155	160	165					
Val Leu Phe Asn	Pro Phe Asp Asp Ile	Ile Pro Arg Glu Ile	Lys	170	175	180					
Arg Leu Lys Lys	Glu Lys Pro Glu Glu	Glu Val Lys Lys Leu	Lys	185	190	195					
Pro Lys Gly Thr	Lys Asn Phe Ser Leu	Leu Ser Phe Gly Glu	Glu	200	205	210					
Ala Glu Glu Glu	Glu Glu Glu Val Asn Arg	Val Ser Gln Ser	Met	215	220	225					
Lys Gly Lys Ser	Lys Ser Ser His Asp	Leu Leu Lys Asp Asp	Pro	230	235	240					
His Leu Ser Ser	Val Pro Val Val Glu	Ser Glu Lys Gly Asp	Ala	245	250	255					
Pro Asp Leu Val	Asp Asp Gly Glu Asp	Glu Ser Ala Glu His	Asp	260	265	270					
Glu Tyr Ile Asp	Gly Asp Glu Lys Asn	Leu Met Arg Glu Arg	Ile	275	280	285					
Ala Lys Lys Leu	Lys Lys Asp Thr Ser	Ala Asn Val Lys Ser	Ala	290	295	300					
Gly Glu Gly Glu	Val Glu Lys Lys Ser	Val Ser Arg Ser Glu	Glu	305	310	315					
Leu Arg Lys Glu	Ala Arg Gln Leu Lys	Arg Glu Leu Leu Ala	Ala	320	325	330					
Lys Gln Lys Lys	Val Glu Asn Ala Ala	Lys Gln Ala Glu Lys	Arg	335	340	345					
Ser Glu Glu Glu	Glu Ala Pro Pro Asp	Gly Ala Val Ala Glu	Tyr	350	355	360					
Arg Arg Glu Lys	Gln Lys Tyr Glu Ala	Leu Arg Lys Gln Gln	Ser	365	370	375					
Lys Lys Gly Thr	Ser Arg Glu Asp Gln	Thr Leu Ala Leu Leu	Asn	380	385	390					
Gln Phe Lys Ser	Lys Leu Thr Gln Ala	Ile Ala Glu Thr Pro	Glu	395	400	405					
Asn Asp Ile Pro	Glu Thr Glu Val Glu	Asp Asp Glu Gly Trp	Met	410	415	420					
Ser His Val Leu	Gln Phe Glu Asp Lys	Ser Arg Lys Val Lys	Asp	425	430	435					
Ala Ser Met Gln	Asp Ser Asp Thr Phe	Glu Ile Tyr Asp Pro	Arg								

	440		445		450
Asn Pro Val Asn	Lys Arg Arg Arg Glu	Glu Ser Lys Lys Leu	Met		
	455		460		465
Arg Glu Lys Lys	Glu Arg Arg				
	470				

<210> 89
 <211> 1196
 <212> DNA
 <213> Homosapiens

<400> 89
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 ggctcggcgc gcgggctctt cctctttggc cagcccgact tctctacaa 150
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 agcttcccc tgcttttgc acgtttgcat cccagcatt tctgagtta 1100
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 gaatcttgta gaaatattca aactaataaa atcatgaata ttttaa 1196

<210> 90

<211> 295
 <212> PRT
 <213> Homosapiens

<400> 90

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          20          25          30
Pro Asp Phe Ser Tyr Lys Arg Ser Asn Cys Lys Pro Ile Pro Val
          35          40          45
Asn Leu Gln Leu Cys His Gly Ile Glu Tyr Gln Asn Met Arg Leu
          50          55          60
Pro Asn Leu Leu Gly His Glu Thr Met Lys Glu Val Leu Glu Gln
          65          70          75
Ala Gly Ala Trp Ile Pro Leu Val Met Lys Gln Cys His Pro Asp
          80          85          90
Thr Lys Lys Phe Leu Cys Ser Leu Phe Ala Pro Val Cys Leu Asp
          95          100          105
Asp Leu Asp Glu Thr Ile Gln Pro Cys His Ser Leu Cys Val Gln
          110          115          120
Val Lys Asp Arg Cys Ala Pro Val Met Ser Ala Phe Gly Phe Pro
          125          130          135
Trp Pro Asp Met Leu Glu Cys Asp Arg Phe Pro Gln Asp Asn Asp
          140          145          150
Leu Cys Ile Pro Leu Ala Ser Ser Asp His Leu Leu Pro Ala Thr
          155          160          165
Glu Glu Ala Pro Lys Val Cys Glu Ala Cys Lys Asn Lys Asn Asp
          170          175          180
Asp Asp Asn Asp Ile Met Glu Thr Leu Cys Lys Asn Asp Phe Ala
          185          190          195
Leu Lys Ile Lys Val Lys Glu Ile Thr Tyr Ile Asn Arg Asp Thr
          200          205          210
Lys Ile Ile Leu Glu Thr Lys Ser Lys Thr Ile Tyr Lys Leu Asn
          215          220          225
Gly Val Ser Glu Arg Asp Leu Lys Lys Ser Val Leu Trp Leu Lys
          230          235          240
Asp Ser Leu Gln Cys Thr Cys Glu Glu Met Asn Asp Ile Asn Ala
          245          250          255
Pro Tyr Leu Val Met Gly Gln Lys Gln Gly Gly Glu Leu Val Ile
          260          265          270
Thr Ser Val Lys Arg Trp Gln Lys Gly Gln Arg Glu Phe Lys Arg
          275          280          285
Ile Ser Arg Ser Ile Arg Lys Leu Gln Cys

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 <211> 693
 <212> PRT
 <213> Homosapiens

<400> 92
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 Leu Leu Phe Leu Val Gln Gly Ala His Gly Arg Gly His Arg Glu
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 Asp Phe Arg Phe Cys Ser Gln Arg Asn Gln Thr His Arg Ser Ser
 35 40 45
 Leu His Tyr Lys Pro Thr Pro Asp Leu Ile Ser Ile Glu Asn
 50 55 60
 Ser Glu Glu Ala Leu Thr Val His Ala Pro Phe Pro Ala Ala His
 65 70 75
 Pro Ala Ser Arg Ser Phe Pro Asp Pro Arg Gly Leu Tyr His Phe
 80 85 90
 Cys Leu Tyr Trp Asn Arg His Ala Gly Arg Leu His Leu Leu Tyr
 95 100 105
 Gly Lys Arg Asp Phe Leu Leu Ser Asp Lys Ala Ser Ser Leu Leu
 110 115 120

Cys	Phe	Gln	His	Gln	Glu	Glu	Ser	Leu	Ala	Gln	Gly	Pro	Pro	Leu
				125					130					135
Leu	Ala	Thr	Ser	Val	Thr	Ser	Trp	Trp	Ser	Pro	Gln	Asn	Ile	Ser
				140					145					150
Leu	Pro	Ser	Ala	Ala	Ser	Phe	Thr	Phe	Ser	Phe	His	Ser	Pro	Pro
				155					160					165
His	Thr	Ala	Ala	His	Asn	Ala	Ser	Val	Asp	Met	Cys	Glu	Leu	Lys
				170					175					180
Arg	Asp	Leu	Gln	Leu	Leu	Ser	Gln	Phe	Leu	Lys	His	Pro	Gln	Lys
				185					190					195
Ala	Ser	Arg	Arg	Pro	Ser	Ala	Ala	Pro	Ala	Ser	Gln	Gln	Leu	Gln
				200					205					210
Ser	Leu	Glu	Ser	Lys	Leu	Thr	Ser	Val	Arg	Phe	Met	Gly	Asp	Met
				215					220					225
Val	Ser	Phe	Glu	Glu	Asp	Arg	Ile	Asn	Ala	Thr	Val	Trp	Lys	Leu
				230					235					240
Gln	Pro	Thr	Ala	Gly	Leu	Gln	Asp	Leu	His	Ile	His	Ser	Arg	Gln
				245					250					255
Glu	Glu	Glu	Gln	Ser	Glu	Ile	Met	Glu	Tyr	Ser	Val	Leu	Leu	Pro
				260					265					270
Arg	Thr	Leu	Phe	Gln	Arg	Thr	Lys	Gly	Arg	Ser	Gly	Glu	Ala	Glu
				275					280					285
Lys	Arg	Leu	Leu	Leu	Val	Asp	Phe	Ser	Ser	Gln	Ala	Leu	Phe	Gln
				290					295					300
Asp	Lys	Asn	Ser	Ser	Gln	Val	Leu	Gly	Glu	Lys	Val	Leu	Gly	Ile
				305					310					315
Val	Val	Gln	Asn	Thr	Lys	Val	Ala	Asn	Leu	Thr	Glu	Pro	Val	Val
				320					325					330
Leu	Thr	Phe	Gln	His	Gln	Leu	Gln	Pro	Lys	Asn	Val	Thr	Leu	Gln
				335					340					345
Cys	Val	Phe	Trp	Val	Glu	Asp	Pro	Thr	Leu	Ser	Ser	Pro	Gly	His
				350					355					360
Trp	Ser	Ser	Ala	Gly	Cys	Glu	Thr	Val	Arg	Arg	Glu	Thr	Gln	Thr
				365					370					375
Ser	Cys	Phe	Cys	Asn	His	Leu	Thr	Tyr	Phe	Ala	Val	Leu	Met	Val
				380					385					390
Ser	Ser	Val	Glu	Val	Asp	Ala	Val	His	Lys	His	Tyr	Leu	Ser	Leu
				395					400					405
Leu	Ser	Tyr	Val	Gly	Cys	Val	Val	Ser	Ala	Leu	Ala	Cys	Leu	Val
				410					415					420
Thr	Ile	Ala	Ala	Tyr	Leu	Cys	Ser	Arg	Val	Pro	Leu	Pro	Cys	Arg
				425					430					435

Arg Lys Pro Arg Asp Tyr Thr Ile Lys Val His Met Asn Leu Leu
 440 445
 Leu Ala Val Phe Leu Leu Asp Thr Ser Phe Leu Leu Ser Glu Pro
 455 460
 Val Ala Leu Thr Gly Ser Glu Ala Gly Cys Arg Ala Ser Ala Ile
 470 475
 Phe Leu His Phe Ser Leu Leu Thr Cys Leu Ser Trp Met Gly Leu
 485 490
 Glu Gly Tyr Asn Leu Tyr Arg Leu Val Val Glu Val Phe Gly Thr
 500 505
 Tyr Val Pro Gly Tyr Leu Leu Lys Leu Ser Ala Met Gly Trp Gly
 515 520
 Phe Pro Ile Phe Leu Val Thr Leu Val Ala Leu Val Asp Val Asp
 530 535
 Asn Tyr Gly Pro Ile Ile Leu Ala Val His Arg Thr Pro Glu Gly
 545 550
 Val Ile Tyr Pro Ser Met Cys Trp Ile Arg Asp Ser Leu Val Ser
 560 565
 Tyr Ile Thr Asn Leu Gly Leu Phe Ser Leu Val Phe Leu Phe Asn
 575 580
 Met Ala Met Leu Ala Thr Met Val Val Gln Ile Leu Arg Leu Arg
 590 595
 Pro His Thr Gln Lys Trp Ser His Val Leu Thr Leu Leu Gly Leu
 605 610
 Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Ile Phe Phe Ser Phe
 620 625
 Ala Ser Gly Thr Phe Gln Leu Val Val Leu Tyr Leu Phe Ser Ile
 635 640
 Ile Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile Trp Tyr Trp Ser
 650 655
 Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu Lys Ser Asn
 665 670
 Ser Asp Ser Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr Ser Ser
 680 685
 Ser Arg Ile

<210> 93
 <211> 647
 <212> DNA
 <213> Homosapiens

<400> 93
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 agcacctcct ctcttctcct ttgtcccaaa ctacccagtg gagtgtgagc 100

atttaagaag catcctctgc caagacacaa aggaagaag aaaaagggcc 150
 aaaagccaaa atgaaactga tggactctgt ttccaccatt gggctaactt 200
 tgctgctagg agttcaagcc atgcctgcaa atgcctcttc ttgctacaga 250
 aagatactaa aagatcacaa ctgtcacac cttccggaag gagtagctga 300
 cctgacacag attgatgtca atgtccagga tcatttctgg gatgggaagg 350
 gatgtgagat gatctgttac tgcaacttca ggaatttct ctgctgcccc 400
 aaagacgttt tctttggacc aaagatctct ttcgtgattc ctgcaacaa 450
 tcaatgagaa tcttcatgta ttctggagaa caccattcct gatttccac 500
 aaactgcact acatcagtat aactgcattt ctagtctcta tatagtcaa 550
 tagagcatag attctataaa ttcttacttg tctaagacaa gtaaactctg 600
 gttaaacaag tagtaataaa agttaattca atctaaaaaa aaaaaaa 647

<210> 94
 <211> 98
 <212> PRT
 <213> Homosapiens

<400> 94
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 Leu Gly Val Gln Ala Met Pro Ala Asn Arg Leu Ser Cys Tyr Arg
 20 25 30
 Lys Ile Leu Lys Asp His Asn Cys His Asn Leu Pro Glu Gly Val
 35 40 45
 Ala Asp Leu Thr Gln Ile Asp Val Asn Val Gln Asp His Phe Trp
 50 55 60
 Asp Gly Lys Gly Cys Glu Met Ile Cys Tyr Cys Asn Phe Ser Glu
 65 70 75
 Leu Leu Cys Cys Pro Lys Asp Val Phe Phe Gly Pro Lys Ile Ser
 80 85 90
 Phe Val Ile Pro Cys Asn Asn Gln
 95

<210> 95
 <211> 531
 <212> DNA
 <213> Murine

<400> 95
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 tgttcccttc tcatctgcat ctccctgctc cagctgatgg tcccgatgaa 100
 tactgatgag accatagaga ttatcgtgga gaataaggtc aaggaacttc 150
 ttgccaatcc agctaactat ccctccactg taacgaagac tctctcttgc 200

actagtgtca agactatgaa cagatgggcc tcctgccctg ctgggatgac 250
 tgctactggg tgtgcttggt gctttgcctg tggatcttgg gagatccaga 300
 gtggagatac ttgcaactgc ctgtgcttac tcgttgactg gacctatgcc 350
 cgctgctgcc aactgtccta agaatagaaga ggtggagaac ccagctttga 400
 tatgatgaat ctaacaaaaa ctgcagcttc aatttggaac tctgactcat 450
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 ttcttgaaaa ataaagacaa atttgcattg g 531

<210> 96
 <211> 111
 <212> PRT
 <213> Murine

<400> 96
 Met Lys Thr Thr Thr Cys Ser Leu Leu Ile Cys Ile Ser Leu Leu
 1 5 10 15
 Gln Leu Met Val Pro Val Asn Thr Asp Glu Thr Ile Glu Ile Ile
 20 25 30
 Val Glu Asn Lys Val Lys Glu Leu Leu Ala Asn Pro Ala Asn Tyr
 35 40 45
 Pro Ser Thr Val Thr Lys Thr Leu Ser Cys Thr Ser Val Lys Thr
 50 55 60
 Met Asn Arg Trp Ala Ser Cys Pro Ala Gly Met Thr Ala Thr Gly
 65 70 75
 Cys Ala Cys Gly Phe Ala Cys Gly Ser Trp Glu Ile Gln Ser Gly
 80 85 90
 Asp Thr Cys Asn Cys Leu Cys Leu Leu Val Asp Trp Thr Thr Ala
 95 100 105
 Arg Cys Cys Gln Leu Ser
 110

<210> 97
 <211> 1121
 <212> DNA
 <213> Homosapiens

<400> 97
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 acaggaaatg atccattccc tgtggtcact tattctaaag gccccaacct 150
 tcaaagtcca agtagtgata tggatgactc cacagaaaagg gagcagtcac 200
 gccttacttc ttgccttaag aaaagagaag aaatgaaact gaaggagtgt 250
 gtttccatcc tcccacggaa ggaagcccc tctgtccgat cctccaaaaga 300
 cggaaaagctg ctggctgcaa ccttgctgct ggcaactgctg tcttgctgcc 350

tcacggtggt gtctttctac cagggtggcg ccctgcaagg ggacctggcc 400
 agcctccggg cagagctgca gggccaccac gcggagaagc tgccagcagg 450
 agcaggagcc cccaaggccg gcctggagga agctccagct gtcaccgcgg 500
 gactgaaaaa ctttgaacca ccagctccag gagaaggcaa ctccagtcag 550
 aacagcagaa ataagcgtgc cgttcagggt ccagaagaaa cagtactca 600
 agactgcttg caactgattg cagacagtga aacaccaact atacaaaaag 650
 gatcttacac atttgttcca tggcttctca gctttaaaag ggaagtgcc 700
 ctagaagaaa aagagaataa aatattggtc aaagaaactg gttacttttt 750
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<210> 98
 <211> 285
 <212> PRT
 <213> Homosapiens

<400> 98
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 20 25 30
 Leu Pro Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly
 35 40 45
 Lys Leu Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys
 50 55 60
 Leu Thr Val Val Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp
 65 70 75
 Leu Ala Ser Leu Arg Ala Glu Leu Gln Gly His His Ala Glu Lys
 80 85 90
 Leu Pro Ala Gly Ala Gly Ala Pro Lys Ala Gly Leu Glu Glu Ala
 95 100 105
 Pro Ala Val Thr Ala Gly Leu Lys Ile Phe Glu Pro Pro Ala Pro
 110 115 120
 Gly Glu Gly Asn Ser Ser Gln Asn Ser Arg Asn Lys Arg Ala Val

125	130	135
Gln Gly Pro Glu Glu Thr Val Thr Gln Asp Cys Leu Gln Leu Ile		
140	145	150
Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr Phe		
155	160	165
Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu		
170	175	180
Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr Phe Phe Ile		
185	190	195
Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met Gly His		
200	205	210
Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser		
215	220	225
Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu		
230	235	240
Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu		
245	250	255
Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile		
260	265	270
Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu		
275	280	285

<210> 99
 <211> 1885
 <212> DNA
 <213> Homosapiens

<400> 99
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 cgcccgagg gtggggcgcc gctggggccg gccgcacgg gcttcatctg 100
 agggcgacgg gccgcgacc gagcgtgctg actggcctcc caagcgtggg 150
 gcgacaagct gccggagctg caatgggccc cggtgggga ttcttgtttg 200
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 ctgatggaat taaatctgcg agctacaagt attctgaaga agccaataat 550
 ctcatggaag aatgtgaaca agctgaacga cttggagcag tggatgaatc 600
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attcttcaga taacttctgt gaagctgatg acattcagtc ccttgaagct 700
 gaatatgtag atttgcttct taatcctgag cgctacactg gttacaaggg 750
 accagatgct tggaaaatat ggaatgtcat ctacgaagaa aactgtttta 800
 agccacagac aattaaaaaga cctttaaatc ctttggtctc tggccaaggg 850
 acaagtgaag agaacacttt ttacagttgg ctagaaggtc tctgtgtaga 900
 aaaaagagca ttctacagac ttatatctgg cctacatgca agcattaatg 950
 tgcattttgag tgcaagatat cttttacaag agacctggtt agaaaaagaa 1000
 tggggacaca acattacaga atttcaacag cgatttgatg gaattttgac 1050
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 tagaactaag ggctttatcc aaagtgttac cattcttcga gcgccagat 1150
 tttcaactct ttactggaaa taaaattcag gatgaggaaa acaaaatggt 1200
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 gactttcgac tgcattttag aaatatctca agaattatgg attgtgttgg 1350
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 attcaacgca tttggaagaa tttctacaag tgtgaagaaa ttagaaaaact 1550
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 ctgtttctgg acaatggagg cgaaagagtg gaatttcatt caaaggcata 1650
 atagcaatga cagtcttaag ccaaacattt tatataaagt tgcttttgta 1700
 aaggagaatt atattgtttt aagtaaacac atttttaaaa attgtgttaa 1750
 gtctatgtat aatactactg tgagtaaaag taatacttta ataattgtgt 1800
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1885

<210> 100
 <211> 468
 <212> PRT
 <213> Homosapiens

<400> 100
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 Trp Leu Leu Ser Ser Gly His Gly Glu Glu Gln Pro Pro Glu Thr
 20 25 30
 Ala Ala Gln Arg Cys Phe Cys Gln Val Ser Gly Tyr Leu Asp Asp

35										40					45				
Cys	Thr	Cys	Asp	Val	Glu	Thr	Ile	Asp	Arg	Phe	Asn	Asn	Tyr	Arg					
				50					55					60					
Leu	Phe	Pro	Arg	Leu	Gln	Lys	Leu	Leu	Glu	Ser	Asp	Tyr	Phe	Arg					
				65					70					75					
Tyr	Tyr	Lys	Val	Asn	Leu	Lys	Arg	Pro	Cys	Pro	Phe	Trp	Asn	Asp					
				80					85					90					
Ile	Ser	Gln	Cys	Gly	Arg	Arg	Asp	Cys	Ala	Val	Lys	Pro	Cys	Gln					
				95					100					105					
Ser	Asp	Glu	Val	Pro	Asp	Gly	Ile	Lys	Ser	Ala	Ser	Tyr	Lys	Tyr					
				110					115					120					
Ser	Glu	Glu	Ala	Asn	Asn	Leu	Ile	Glu	Glu	Cys	Glu	Gln	Ala	Glu					
				125					130					135					
Arg	Leu	Gly	Ala	Val	Asp	Glu	Ser	Leu	Ser	Glu	Glu	Thr	Gln	Lys					
				140					145					150					
Ala	Val	Leu	Gln	Trp	Thr	Lys	His	Asp	Asp	Ser	Ser	Asp	Asn	Phe					
				155					160					165					
Cys	Glu	Ala	Asp	Asp	Ile	Gln	Ser	Pro	Glu	Ala	Glu	Tyr	Val	Asp					
				170					175					180					
Leu	Leu	Leu	Asn	Pro	Glu	Arg	Tyr	Thr	Gly	Tyr	Lys	Gly	Pro	Asp					
				185					190					195					
Ala	Trp	Lys	Ile	Trp	Asn	Val	Ile	Tyr	Glu	Glu	Asn	Cys	Phe	Lys					
				200					205					210					
Pro	Gln	Thr	Ile	Lys	Arg	Pro	Leu	Asn	Pro	Leu	Ala	Ser	Gly	Gln					
				215					220					225					
Gly	Thr	Ser	Glu	Glu	Asn	Thr	Phe	Tyr	Ser	Trp	Leu	Glu	Gly	Leu					
				230					235					240					
Cys	Val	Glu	Lys	Arg	Ala	Phe	Tyr	Arg	Leu	Ile	Ser	Gly	Leu	His					
				245					250					255					
Ala	Ser	Ile	Asn	Val	His	Leu	Ser	Ala	Arg	Tyr	Leu	Leu	Gln	Glu					
				260					265					270					
Thr	Trp	Leu	Glu	Lys	Lys	Trp	Gly	His	Asn	Ile	Thr	Glu	Phe	Gln					
				275					280					285					
Gln	Arg	Phe	Asp	Gly	Ile	Leu	Thr	Glu	Gly	Glu	Gly	Pro	Arg	Arg					
				290					295					300					
Leu	Lys	Asn	Leu	Tyr	Phe	Leu	Tyr	Leu	Ile	Glu	Leu	Arg	Ala	Leu					
				305					310					315					
Ser	Lys	Val	Leu	Pro	Phe	Phe	Glu	Arg	Pro	Asp	Phe	Gln	Leu	Phe					
				320					325					330					
Thr	Gly	Asn	Lys	Ile	Gln	Asp	Glu	Glu	Asn	Lys	Met	Leu	Leu	Leu					
				335					340					345					
Glu	Ile	Leu	His	Glu	Ile	Lys	Ser	Phe	Pro	Leu	His	Phe	Asp	Glu					

	350		355		360
Asn Ser Phe Phe Ala Gly Asp Lys Lys Glu Ala His Lys Leu Lys					
	365				375
Glu Asp Phe Arg Leu His Phe Arg Asn Ile Ser Arg Ile Met Asp					
	380				390
Cys Val Gly Cys Phe Lys Cys Arg Leu Trp Gly Lys Leu Gln Thr					
	395				405
Gln Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe Ser Glu Lys Leu					
	410				420
Ile Ala Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu Phe His Leu					
	425				435
Thr Arg Gln Glu Ile Val Ser Leu Phe Asn Ala Phe Gly Arg Ile					
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Ser Thr Ser Val Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu Gln					
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Asn Ile His

<210> 101
 <211> 1615
 <212> DNA
 <213> Homosapiens

<400> 101
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 ttggaaagag aatattttta gggggaattt ccaccttacc caaaacctgg 250
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 cagaccgacc tggatggctt cgatatatcc aaaggacacc atatagtgat 350
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<210> 102
 <211> 437
 <212> PRT
 <213> Homosapiens

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 35 40 45
 Ser Asp Arg Asn Val Tyr Pro Ser Ala Gly Val Leu Phe Val His
 50 55 60
 Val Leu Glu Arg Glu Tyr Phe Lys Gly Glu Phe Pro Pro Tyr Pro
 65 70 75
 Lys Pro Gly Glu Ile Ser Asn Asp Pro Ile Thr Phe Asn Thr Asn
 80 85 90
 Leu Met Gly Tyr Pro Asp Arg Pro Gly Trp Leu Arg Tyr Ile Gln
 95 100 105
 Arg Thr Pro Tyr Ser Asp Gly Val Leu Tyr Gly Ser Pro Thr Ala
 110 115 120

Glu Asn Val Gly	Lys 125	Pro Thr Ile Ile	Glu 130	Ile Thr Ala Tyr	Asn 135
Arg Arg Thr Phe	Glu 140	Thr Ala Arg His	Asn 145	Leu Ile Ile Asn	Ile 150
Met Ser Ala Glu	Asp 155	Phe Pro Leu Pro	Tyr 160	Gln Ala Glu Phe	Phe 165
Ile Lys Asn Met	Asn 170	Val Glu Glu Met	Leu 175	Ala Ser Glu Val	Leu 180
Gly Asp Phe Leu	Gly 185	Ala Val Lys Asn	Val 190	Trp Gln Pro Glu	Arg 195
Leu Asn Ala Ile	Asn 200	Ile Thr Ser Ala	Leu 205	Asp Arg Gly Gly	Arg 210
Val Pro Leu Pro	Ile 215	Asn Asp Leu Lys	Glu 220	Gly Val Tyr Val	Met 225
Val Gly Ala Asp	Val 230	Pro Phe Ser Ser	Cys 235	Leu Arg Glu Val	Glu 240
Asn Pro Gln Asn	Gln 245	Leu Arg Cys Ser	Gln 250	Glu Met Glu Pro	Val 255
Ile Thr Cys Asp	Lys 260	Lys Phe Arg Thr	Gln 265	Phe Tyr Ile Asp	Trp 270
Cys Lys Ile Ser	Leu 275	Val Asp Lys Thr	Lys 280	Gln Val Ser Thr	Tyr 285
Gln Glu Val Ile	Arg 290	Gly Glu Gly Ile	Leu 295	Pro Asp Gly Gly	Glu 300
Tyr Lys Pro Pro	Ser 305	Asp Ser Leu Lys	Ser 310	Arg Asp Tyr Tyr	Thr 315
Asp Phe Leu Ile	Thr 320	Leu Ala Val Pro	Ser 325	Ala Val Ala Leu	Val 330
Leu Phe Leu Ile	Leu 335	Ala Tyr Ile Met	Cys 340	Cys Arg Arg Glu	Gly 345
Val Glu Lys Arg	Asn 350	Met Gln Thr Pro	Asp 355	Ile Gln Leu Val	His 360
His Ser Ala Ile	Gln 365	Lys Ser Thr Lys	Glu 370	Leu Arg Asp Met	Ser 375
Lys Asn Arg Glu	Ile 380	Ala Trp Pro Leu	Ser 385	Thr Leu Pro Val	Phe 390
His Pro Val Thr	Gly 395	Glu Ile Ile Pro	Pro 400	Leu His Thr Asp	Asn 405
Tyr Asp Ser Thr	Asn 410	Met Pro Leu Met	Gln 415	Thr Gln Gln Asn	Leu 420
Pro His Gln Thr	Gln 425	Ile Pro Gln Gln	Gln 430	Thr Thr Gly Lys	Trp 435

Tyr Pro

<210> 103

<211> 1621

<212> DNA

<213> Homosapiens

<400> 103

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<210> 104

<211> 358

<212> PRT

<213> Homosapiens

<400> 104

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Gly	Val	Pro	Arg	Ser	Ala	Ser	Ile	Lys	Asp	Ile	Lys	Lys	Ala	Tyr	35					40					45	
Arg	Lys	Leu	Ala	Leu	Gln	Leu	His	Pro	Asp	Arg	Asn	Pro	Asp	Asp	50					55					60	
Pro	Gln	Ala	Gln	Glu	Lys	Phe	Gln	Asp	Leu	Gly	Ala	Ala	Tyr	Glu	65					70					75	
Val	Leu	Ser	Asp	Ser	Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly	80					85					90	
Glu	Glu	Gly	Leu	Lys	Asp	Gly	His	Gln	Ser	Ser	His	Gly	Asp	Ile	95					100					105	
Phe	Ser	His	Phe	Phe	Gly	Asp	Phe	Gly	Phe	Met	Phe	Gly	Gly	Thr	110					115					120	
Pro	Arg	Gln	Gln	Asp	Arg	Asn	Ile	Pro	Arg	Gly	Ser	Asp	Ile	Ile	125					130					135	
Val	Asp	Leu	Glu	Val	Thr	Leu	Glu	Glu	Val	Tyr	Ala	Gly	Asn	Phe	140					145					150	
Val	Glu	Val	Val	Arg	Asn	Lys	Pro	Val	Ala	Arg	Gln	Ala	Pro	Gly	155					160					165	
Lys	Arg	Lys	Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Thr	Gln	Leu	170					175					180	
Gly	Pro	Gly	Arg	Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	185					190					195	
Cys	Pro	Asn	Val	Lys	Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	200					205					210	
Glu	Ile	Glu	Pro	Gly	Val	Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	215					220					225	

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<210> 106

<211> 226

<212> PRT

<213> Homosapiens

<400> 106

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				20					25					30
Tyr	Cys	Arg	Pro	Arg	Asp	Leu	Leu	Gln	Arg	Tyr	Asp	Ser	Lys	Pro
				35					40					45
Ile	Val	Asp	Leu	Ile	Gly	Ala	Met	Glu	Thr	Gln	Ser	Glu	Pro	Ser
				50					55					60
Glu	Leu	Glu	Leu	Asp	Asp	Val	Val	Ile	Thr	Asn	Pro	His	Ile	Glu
				65					70					75
Ala	Ile	Leu	Glu	Asn	Glu	Asp	Trp	Ile	Glu	Asp	Ala	Ser	Gly	Leu
				80					85					90
Met	Ser	His	Cys	Ile	Ala	Ile	Leu	Lys	Ile	Cys	His	Thr	Leu	Thr
				95					100					105
Glu	Lys	Leu	Val	Ala	Met	Thr	Met	Gly	Ser	Gly	Ala	Lys	Met	Lys
				110					115					120

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Thr Ser Ala Ser Val Ser Asp Ile Ile Val Val Ala Lys Arg Ile
      125      130
Ser Pro Arg Val Asp Asp Val Val Lys Ser Met Tyr Pro Pro Leu
      140      145      150
Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr Ala Leu Leu Leu Ser
      155      160      165
Val Ser His Leu Val Leu Val Thr Arg Asn Ala Cys His Leu Thr
      170      175      180
Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala Ala Glu Glu
      185      190      195
His Leu Glu Val Leu Arg Glu Ala Ala Leu Ala Ser Glu Pro Asp
      200      205      210
Lys Gly Leu Pro Gly Pro Glu Gly Phe Leu Gln Glu Gln Ser Ala
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Ile

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<211> 1027

<212> DNA

<213> Homosapiens

<220>

<221> unsure

<222> 1017, 1020

<223> unknown base

<400> 107

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<210> 108
 <211> 138
 <212> PRT
 <213> Homosapiens

<400> 108
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 Asp Lys Ala Leu Leu Ala Ile Gly Asn Val Leu Phe Val Ala Gly
 35 40 45
 Leu Ala Phe Val Ile Gly Leu Glu Arg Thr Phe Arg Phe Phe Phe
 50 55 60
 Gln Lys His Lys Met Lys Ala Thr Gly Phe Phe Leu Gly Gly Val
 65 70 75
 Phe Val Val Leu Ile Gly Trp Pro Leu Ile Gly Met Ile Phe Glu
 80 85 90
 Ile Tyr Gly Phe Phe Leu Leu Phe Arg Gly Phe Phe Pro Val Val
 95 100 105
 Val Gly Phe Ile Arg Arg Val Pro Val Leu Gly Ser Leu Leu Asn
 110 115 120
 Leu Pro Gly Ile Arg Ser Phe Val Asp Lys Val Gly Glu Ser Asn
 125 130 135
 Asn Met Val

<210> 109
 <211> 550
 <212> DNA
 <213> Homosapiens

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<210> 110
 <211> 125
 <212> PRT
 <213> Homosapiens

<400> 110
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 Pro Thr Gly Val Ser Asp Cys Val Thr Ile Ala Thr Cys Thr Thr
 35 40 45
 Asn Glu Thr Met Cys Lys Thr Thr Leu Tyr Ser Arg Glu Ile Val
 50 55 60
 Tyr Pro Phe Gln Gly Asp Ser Thr Val Thr Lys Ser Cys Ala Ser
 65 70 75
 Lys Cys Lys Pro Ser Asp Val Asp Gly Ile Gly Gln Thr Leu Pro
 80 85 90
 Val Ser Cys Cys Asn Thr Glu Leu Cys Asn Val Asp Gly Ala Pro
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 <211> 2368
 <212> DNA
 <213> Homosapiens

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<210> 112
 <211> 349
 <212> PRT
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 35 40 45
 Asn Trp Thr Leu Val Met Glu Gly Glu Trp Met Leu Lys Phe Tyr
 50 55 60
 Ala Pro Trp Cys Pro Ser Cys Gln Gln Thr Asp Ser Glu Trp Glu
 65 70 75
 Ala Phe Ala Lys Asn Gly Glu Ile Leu Gln Ile Ser Val Gly Lys
 80 85 90
 Val Asp Val Ile Gln Glu Pro Gly Leu Ser Gly Arg Phe Phe Val
 95 100 105
 Thr Thr Leu Pro Ala Phe Phe His Ala Lys Asp Gly Ile Phe Arg
 110 115 120
 Arg Tyr Arg Gly Pro Gly Ile Phe Glu Asp Leu Gln Asn Tyr Ile
 125 130 135
 Leu Glu Lys Lys Trp Gln Ser Val Glu Pro Leu Thr Gly Trp Lys
 140 145 150
 Ser Pro Ala Ser Leu Thr Met Ser Gly Met Ala Gly Leu Phe Ser
 155 160 165
 Ile Ser Gly Lys Ile Trp His Leu His Asn Tyr Phe Thr Val Thr
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 Leu Gln Asp Ala Glu Glu Glu Lys Asp Asp Ser Asn Glu Glu Glu
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 Asn Lys Asp Ser Leu Val Asp Asp Glu Glu Lys Glu Asp Leu
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 Gly Asp Glu Asp Glu Ala Glu Glu Gly Glu Glu Glu Asp Asn Leu
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 Pro Pro Gly Glu Asp Gly Val Thr Arg Glu Glu Val Glu Pro Glu
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 Asp Lys Gly Leu

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 Ala Ser Ser Arg Glu Ile Arg Gln Ala Phe Lys Lys Leu Ala Leu
 50 55 60
 Lys Leu His Pro Asp Lys Asn Pro Asn Asn Pro Asn Ala His Gly
 65 70 75
 Asp Phe Leu Lys Ile Asn Arg Ala Tyr Glu Val Leu Lys Asp Glu
 80 85 90
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 Asp Asn Gln Gly Gly Gln Tyr Glu Ser Trp Asn Tyr Tyr Arg Tyr
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 Asp Phe Gly Ile Tyr Asp Asp Asp Pro Glu Ile Ile Thr Leu Glu
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 140 145 150
 Val Asn Phe Tyr Ser Pro Gly Cys Ser His Cys His Asp Leu Ala
 155 160 165
 Pro Thr Trp Arg Asp Phe Ala Lys Glu Val Asp Gly Leu Leu Arg
 170 175 180
 Ile Gly Ala Val Asn Cys Gly Asp Asp Arg Met Leu Cys Arg Met
 185 190 195
 Lys Gly Val Asn Ser Tyr Pro Ser Leu Phe Ile Phe Arg Ser Gly
 200 205 210
 Met Ala Pro Val Lys Tyr His Gly Asp Arg Ser Lys Glu Ser Leu
 215 220 225

Val Ser Phe Ala	Met Gln His Val Arg Ser Thr Val Thr Glu Leu	230	235	240
Trp Thr Gly Asn	Phe Val Asn Ser Ile Gln Thr Ala Phe Ala Ala	245	250	255
Gly Ile Gly Trp	Leu Ile Thr Phe Cys Ser Lys Gly Gly Asp Cys	260	265	270
Leu Thr Ser Gln	Thr Arg Leu Arg Leu Ser Gly Met Leu Phe Leu	275	280	285
Asn Ser Leu Asp	Ala Lys Glu Ile Tyr Leu Glu Val Ile His Asn	290	295	300
Leu Pro Asp Phe	Glu Leu Leu Ser Ala Asn Thr Leu Glu Asp Arg	305	310	315
Leu Ala His His	Arg Trp Leu Leu Phe Phe His Phe Gly Lys Asn	320	325	330
Glu Asn Ser Asn	Asp Pro Glu Leu Lys Lys Leu Lys Thr Leu Leu	335	340	345
Lys Asn Asp His	Ile Gln Val Gly Arg Phe Asp Cys Ser Ser Ala	350	355	360
Pro Asp Ile Cys	Ser Asn Leu Tyr Val Phe Gln Pro Ser Leu Ala	365	370	375
Val Phe Lys Gly	Gln Gly Thr Lys Glu Tyr Glu Ile His His Gly	380	385	390
Lys Lys Ile Leu	Tyr Asp Ile Leu Ala Phe Ala Lys Glu Ser Val	395	400	405
Asn Ser His Val	Thr Thr Leu Gly Pro Gln Asn Phe Pro Ala Asn	410	415	420
Asp Lys Glu Pro	Trp Leu Val Asp Phe Phe Ala Pro Trp Cys Pro	425	430	435
Pro Cys Arg Ala	Leu Leu Pro Glu Leu Arg Arg Ala Ser Asn Leu	440	445	450
Leu Tyr Gly Gln	Leu Lys Phe Gly Thr Leu Asp Cys Thr Val His	455	460	465
Glu Gly Leu Cys	Asn Met Tyr Asn Ile Gln Ala Tyr Pro Thr Thr	470	475	480
Val Val Phe Asn	Gln Ser Asn Ile His Glu Tyr Glu Gly His His	485	490	495
Ser Ala Glu Gln	Ile Leu Glu Phe Ile Glu Asp Leu Met Asn Pro	500	505	510
Ser Val Val Ser	Leu Thr Pro Thr Thr Phe Asn Glu Leu Val Thr	515	520	525
Gln Arg Lys His	Asn Glu Val Trp Met Val Asp Phe Tyr Ser Pro	530	535	540

Trp Cys His Pro Cys Gln Val Leu Met	Pro Glu Trp Lys Arg Met
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Ala Pro Glu Phe Glu Leu Leu Ala Arg Met Ile Lys Gly Lys Val	
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Lys Ala Gly Lys Val Asp Cys Gln Ala Tyr Ala Gln Thr Cys Gln	
680	685 690
Lys Ala Gly Ile Arg Ala Tyr Pro Thr Val Lys Phe Tyr Phe Tyr	
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Glu Arg Ala Lys Arg Asn Phe Gln Glu Gln Ile Asn Thr Arg	
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<211> 2720

<212> DNA

<213> Homosapiens

<400> 115

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 35 40 45
 His Arg Asp Phe Ile Ser Val Thr Leu Ser Phe Gly Glu Ser Tyr
 50 55 60
 Asp Asn Ser Lys Ser Trp Arg Arg Arg Ser Cys Trp Arg Lys Trp
 65 70 75
 Lys Gln Leu Ser Arg Leu Gln Arg Asn Met Ile Leu Phe Leu Leu
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 Ala Phe Leu Leu Phe Cys Gly Leu Leu Phe Tyr Ile Asn Leu Ala
 95 100 105
 Asp His Trp Lys Ala Leu Ala Phe Arg Leu Glu Glu Glu Gln Lys
 110 115 120
 Met Arg Pro Glu Ile Ala Gly Leu Lys Pro Ala Asn Pro Pro Val
 125 130 135

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Glu	Ile	Ser	Ser	Gln	Lys	Thr	Gln	Arg	His	Ile	Gln	Arg	Gly	Pro	155	160	165
Pro	His	Leu	Gln	Ile	Arg	Pro	Pro	Ser	Gln	Asp	Leu	Lys	Asp	Gly	170	175	180
Thr	Gln	Glu	Glu	Ala	Thr	Lys	Arg	Gln	Glu	Ala	Pro	Val	Asp	Pro	185	190	195
Arg	Pro	Glu	Gly	Asp	Pro	Gln	Arg	Thr	Val	Ile	Ser	Trp	Arg	Gly	200	205	210
Ala	Val	Ile	Glu	Pro	Glu	Gln	Gly	Thr	Glu	Leu	Pro	Ser	Arg	Arg	215	220	225
Ala	Glu	Val	Pro	Thr	Lys	Pro	Pro	Leu	Pro	Pro	Ala	Arg	Thr	Gln	230	235	240
Gly	Thr	Pro	Val	His	Leu	Asn	Tyr	Arg	Gln	Lys	Gly	Val	Ile	Asp	245	250	255
Val	Phe	Leu	His	Ala	Trp	Lys	Gly	Tyr	Arg	Lys	Phe	Ala	Trp	Gly	260	265	270
His	Asp	Glu	Leu	Lys	Pro	Val	Ser	Arg	Ser	Phe	Ser	Glu	Trp	Phe	275	280	285
Gly	Leu	Gly	Leu	Thr	Leu	Ile	Asp	Ala	Leu	Asp	Thr	Met	Trp	Ile	290	295	300
Leu	Gly	Leu	Arg	Lys	Glu	Phe	Glu	Glu	Ala	Arg	Lys	Trp	Val	Ser	305	310	315
Lys	Lys	Leu	His	Phe	Glu	Lys	Asp	Val	Asp	Val	Asn	Leu	Phe	Glu	320	325	330
Ser	Thr	Ile	Arg	Ile	Leu	Gly	Gly	Leu	Leu	Ser	Ala	Tyr	His	Leu	335	340	345
Ser	Gly	Asp	Ser	Leu	Phe	Leu	Arg	Lys	Ala	Glu	Asp	Phe	Gly	Asn	350	355	360
Arg	Leu	Met	Pro	Ala	Phe	Arg	Thr	Pro	Ser	Lys	Ile	Pro	Tyr	Ser	365	370	375
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Arg	Glu	Leu	Ser	Arg	Leu	Thr	Gly	Asp	Lys	Lys	Phe	Gln	Glu	Ala	410	415	420
Val	Glu	Lys	Val	Thr	Gln	His	Ile	His	Gly	Leu	Ser	Gly	Lys	Lys	425	430	435
Asp	Gly	Leu	Val	Pro	Met	Phe	Ile	Asn	Thr	His	Ser	Gly	Leu	Phe	440	445	450

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Thr His Leu Leu	Arg His Ser Glu Pro	Ser Lys Leu Thr Phe Val	
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Gly Glu Leu Ala	His Gly Arg Phe Ser	Ala Lys Met Asp His Leu	
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Val Cys Phe Leu	Pro Gly Thr Leu Ala	Leu Gly Val Tyr His Glu	
	530	535	540
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Cys Tyr Gln Met	Asn Arg Gln Met Glu	Thr Gly Leu Ser Pro Glu	
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Ile Val His Phe	Asn Leu Tyr Pro Gln	Pro Gly Arg Arg Asp Val	
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Glu Val Lys Pro	Ala Asp Arg His Asn	Leu Leu Arg Pro Glu Thr	
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Val Glu Ser Leu	Phe Tyr Leu Tyr Arg	Val Thr Gly Asp Arg Lys	
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Tyr Gln Asp Trp	Gly Trp Glu Ile Leu	Gln Ser Phe Ser Arg Phe	
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Thr Arg Val Pro	Ser Gly Gly Tyr Ser	Ser Ile Asn Asn Val Gln	
	635	640	645
Asp Pro Gln Lys	Pro Glu Pro Arg Asp	Lys Met Glu Ser Phe Phe	
	650	655	660
Leu Gly Glu Thr	Leu Lys Tyr Leu Phe	Leu Leu Phe Ser Asp Asp	
	665	670	675
Pro Asn Leu Leu	Ser Leu Asp Ala Tyr	Val Phe Asn Thr Glu Ala	
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<211> 1621

<212> DNA

<213> Homosapiens

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<210> 118
<211> 371
<212> PRT

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<213> Homosapiens

<400> 118

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Ala	Leu	Phe	Leu	Leu	Val	Leu	His	His	Asn	Phe	Leu	Ser	Leu	Ser
			20						25					30
Ser	Leu	Leu	Arg	Asn	Glu	Val	Thr	Asp	Ser	Gly	Ile	Val	Gly	Pro
			35						40					45
Gln	Pro	Ile	Asp	Phe	Val	Pro	Asn	Ala	Leu	Arg	His	Ala	Val	Asp
			50						55					60
Gly	Arg	Gln	Glu	Glu	Ile	Pro	Val	Val	Ile	Ala	Ala	Ser	Glu	Asp
			65						70					75
Arg	Leu	Gly	Gly	Ala	Ile	Ala	Ala	Ile	Asn	Ser	Ile	Gln	His	Asn
			80						85					90
Thr	Arg	Ser	Asn	Val	Ile	Phe	Tyr	Ile	Val	Thr	Leu	Asn	Asn	Thr
			95						100					105
Ala	Asp	His	Leu	Arg	Ser	Trp	Leu	Asn	Ser	Asp	Ser	Leu	Lys	Ser
			110						115					120
Ile	Arg	Tyr	Lys	Ile	Val	Asn	Phe	Asp	Pro	Lys	Leu	Leu	Glu	Gly
			125						130					135
Lys	Val	Lys	Glu	Asp	Pro	Asp	Gln	Gly	Glu	Ser	Met	Lys	Pro	Leu
			140						145					150
Thr	Phe	Ala	Arg	Phe	Tyr	Leu	Pro	Ile	Leu	Val	Pro	Ser	Ala	Lys
			155						160					165
Lys	Ala	Ile	Tyr	Met	Asp	Asp	Asp	Val	Ile	Val	Gln	Gly	Asp	Ile
			170						175					180
Leu	Ala	Leu	Tyr	Asn	Thr	Ala	Leu	Lys	Pro	Gly	His	Ala	Ala	Ala
			185						190					195
Phe	Ser	Glu	Asp	Cys	Asp	Ser	Ala	Ser	Thr	Lys	Val	Val	Ile	Arg
			200						205					210
Gly	Ala	Gly	Asn	Gln	Tyr	Asn	Tyr	Ile	Gly	Tyr	Leu	Asp	Tyr	Lys
			215						220					225
Lys	Glu	Arg	Ile	Arg	Lys	Leu	Ser	Met	Lys	Ala	Ser	Thr	Cys	Ser
			230						235					240
Phe	Asn	Pro	Gly	Val	Phe	Val	Ala	Asn	Leu	Thr	Glu	Trp	Lys	Arg
			245						250					255
Gln	Asn	Ile	Thr	Asn	Gln	Leu	Glu	Lys	Trp	Met	Lys	Leu	Asn	Val
			260						265					270
Glu	Glu	Gly	Leu	Tyr	Ser	Arg	Thr	Leu	Ala	Gly	Ser	Ile	Thr	Thr
			275						280					285
Pro	Pro	Leu	Leu	Ile	Val	Phe	Tyr	Gln	Gln	His	Ser	Thr	Ile	Asp
			290						295					300

Pro Met Trp Asn	Val Arg His Leu Gly	Ser Ser Ala Gly Lys	Arg
305		310	315
Tyr Ser Pro Gln	Phe Val Lys Ala Ala	Lys Leu Leu His Trp	Asn
320		325	330
Gly His Leu Lys	Pro Trp Gly Arg Thr	Ala Ser Tyr Thr Asp	Val
335		340	345
Trp Glu Lys Trp	Tyr Ile Pro Asp Pro	Thr Gly Lys Phe Asn	Leu
350		355	360
Ile Arg Arg Tyr	Thr Glu Ile Ser Asn	Ile Lys	
365		370	

<210> 119

<211> 859

<212> DNA

<213> Homosapiens

<400> 119

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tcagggtcaa ggtgaagaaa ccagaaagga actgccctct ccacggatca 200
gctgtcccaa aggctccaag gcctatggct ccccttgcta tgccttgttt 250
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ctccatgacc ccacacaggg ctctgagcct gatggagatg gatgggagtg 450
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ccatcttaaa ccctggccac tgtgggagcc tgtcaagaag cacaggattt 550
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<210> 120

<211> 175

<212> PRT

<213> Homosapiens

<400> 120

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 20 25 30
 Lys Glu Leu Pro Ser Pro Arg Ile Ser Cys Pro Lys Gly Ser Lys
 35 40 45
 Ala Tyr Gly Ser Pro Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser
 50 55 60
 Trp Met Asp Ala Asp Leu Ala Cys Gln Lys Arg Pro Ser Gly Lys
 65 70 75
 Leu Val Ser Val Leu Ser Gly Ala Glu Gly Ser Phe Val Ser Ser
 80 85 90
 Leu Val Arg Ser Ile Ser Asn Ser Tyr Ser Tyr Ile Trp Ile Gly
 95 100 105
 Leu His Asp Pro Thr Gln Gly Ser Glu Pro Asp Gly Asp Gly Trp
 110 115 120
 Glu Trp Ser Ser Thr Asp Val Met Asn Tyr Phe Ala Trp Glu Lys
 125 130 135
 Asn Pro Ser Thr Ile Leu Asn Pro Gly His Cys Gly Ser Leu Ser
 140 145 150
 Arg Ser Thr Gly Phe Leu Lys Trp Lys Asp Tyr Asn Cys Asp Ala
 155 160 165
 Lys Leu Pro Tyr Val Cys Lys Phe Lys Asp
 170 175

<210> 121
 <211> 2056
 <212> DNA
 <213> Homosapiens

<400> 121
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 tcagctccaa catatgcatt ctgaagaaa atggctgaga tggacagaat 200
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<210> 122

<211> 311
 <212> PRT
 <213> Homosapiens

<400> 122

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Phe	Met	Trp	Phe	Phe	Tyr	Ala	Leu	Ile	Pro	Cys	Leu	Leu	Thr	Asp
				20					25					30
Glu	Val	Ala	Ile	Leu	Pro	Ala	Pro	Gln	Asn	Leu	Ser	Val	Leu	Ser
				35					40					45
Thr	Asn	Met	Lys	His	Leu	Leu	Met	Trp	Ser	Pro	Val	Ile	Ala	Pro
				50					55					60
Gly	Glu	Thr	Val	Tyr	Tyr	Ser	Val	Glu	Tyr	Gln	Gly	Glu	Tyr	Glu
				65					70					75
Ser	Leu	Tyr	Thr	Ser	His	Ile	Trp	Ile	Pro	Ser	Ser	Trp	Cys	Ser
				80					85					90
Leu	Thr	Glu	Gly	Pro	Glu	Cys	Asp	Val	Thr	Asp	Asp	Ile	Thr	Ala
				95					100					105
Thr	Val	Pro	Tyr	Asn	Leu	Arg	Val	Arg	Ala	Thr	Leu	Gly	Ser	Gln
				110					115					120
Thr	Ser	Ala	Trp	Ser	Ile	Leu	Lys	His	Pro	Phe	Asn	Arg	Asn	Ser
				125					130					135
Thr	Ile	Leu	Thr	Arg	Pro	Gly	Met	Glu	Ile	Thr	Lys	Asp	Gly	Phe
				140					145					150
His	Leu	Val	Ile	Glu	Leu	Glu	Asp	Leu	Gly	Pro	Gln	Phe	Glu	Phe
				155					160					165
Leu	Val	Ala	Tyr	Trp	Arg	Arg	Glu	Pro	Gly	Ala	Glu	Glu	His	Val
				170					175					180
Lys	Met	Val	Arg	Ser	Gly	Gly	Ile	Pro	Val	His	Leu	Glu	Thr	Met
				185					190					195
Glu	Pro	Gly	Ala	Ala	Tyr	Cys	Val	Lys	Ala	Gln	Thr	Phe	Val	Lys
				200					205					210
Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr	Glu	Cys	Val	Glu
				215					220					225
Val	Gln	Gly	Glu	Ala	Ile	Pro	Leu	Val	Leu	Ala	Leu	Phe	Ala	Phe
				230					235					240
Val	Gly	Phe	Met	Leu	Ile	Leu	Val	Val	Val	Pro	Leu	Phe	Val	Trp
				245					250					255
Lys	Met	Gly	Arg	Leu	Leu	Gln	Tyr	Ser	Cys	Cys	Pro	Val	Val	Val
				260					265					270
Leu	Pro	Asp	Thr	Leu	Lys	Ile	Thr	Asn	Ser	Pro	Gln	Lys	Leu	Ile
				275					280					285
Ser	Cys	Arg	Arg	Glu	Glu	Val	Asp	Ala	Cys	Ala	Thr	Ala	Val	Met

	290	295	300
Ser	Pro	Glu	Glu
	Leu	Leu	Arg
	Ala	Trp	Ile
	Ser		
	305	310	

<210> 123
 <211> 1227
 <212> DNA
 <213> Homosapiens

<400> 123
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 aggacttcta cgacttcaag gcggtcaaca tccggggcaa actggtgtcg 150
 ctggagaagt acgcgggac ggtgtccctg gtggtgaatg tggccagcga 200
 gtgcggcttc acagaccagc actaccgagc cctgcagcag ctgcagcag 250
 acctggggccc ccaccacttt aacgtgctcg ccttcccctg caaccagttt 300
 ggcaacacag agcctgacag caacaaggag attgagagct ttgccgcccg 350
 cacctacagt gtctcattcc ccatgtttag caagattgca gtcaccggta 400
 ctggtgccca tcttgccctc aagtacctgg ccagacttc tgggaaggag 450
 cccacctgga acttctggaa gtacctagta gcccagatg gaaagggtgt 500
 aggggcttgg gacccaactg tgtcagtgga ggaggtcaga cccagatca 550
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 caataaaaac ttgcatccaa catgaatttc cagccgatga taatccaggc 1100
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<210> 124
 <211> 187

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<212> PRT
<213> Homosapiens
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<400> 124

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Val	Asn	Ile	Arg	Gly 35	Lys	Leu	Val	Ser	Leu 40	Glu	Lys	Tyr	Arg	Gly 45	
Ser	Val	Ser	Leu	Val 50	Val	Asn	Val	Ala	Ser 55	Glu	Cys	Gly	Phe	Thr 60	
Asp	Gln	His	Tyr	Arg 65	Ala	Leu	Gln	Gln	Leu 70	Gln	Arg	Asp	Leu	Gly 75	
Pro	His	His	Phe	Asn 80	Val	Leu	Ala	Phe	Pro 85	Cys	Asn	Gln	Phe	Gly 90	
Gln	Gln	Glu	Pro	Asp 95	Ser	Asn	Lys	Glu	Ile 100	Glu	Ser	Phe	Ala	Arg 105	
Arg	Thr	Tyr	Ser	Val 110	Ser	Phe	Pro	Met	Phe 115	Ser	Lys	Ile	Ala	Val 120	
Thr	Gly	Thr	Gly	Ala 125	His	Pro	Ala	Phe	Lys 130	Tyr	Leu	Ala	Gln	Thr 135	
Ser	Gly	Lys	Glu	Pro 140	Thr	Trp	Asn	Phe	Trp 145	Lys	Tyr	Leu	Val	Ala 150	
Pro	Asp	Gly	Lys	Val 155	Val	Gly	Ala	Trp	Asp 160	Pro	Thr	Val	Ser	Val 165	
Glu	Glu	Val	Arg	Pro 170	Gln	Ile	Thr	Ala	Leu 175	Val	Arg	Lys	Leu	Ile 180	
Leu	Leu	Lys	Arg	Glu 185	Asp	Leu									

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<210> 125
<211> 1486
<212> DNA
<213> Homosapiens
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<400> 125

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ggacttctca	tactggacag	aaaccgatca	ggcatggaac	tccccctcgt	150
cactcaactg	ttcttgcgcc	tggtgttctt	gacaggtctc	tgtctccccct	200
ttaacctgga	tgaacatcac	ccacgcctat	tccacaggcc	accagaagct	250
gaatttgat	acagtgtctt	acaacatgtt	gggggtggac	agcgatggat	300
gctggtggc	gccccctggg	atgacacctt	agggcagccg	aggggggagc	350

tttatcgctg ccctgtaggg ggggccccaca atgccccatg tgccaagggc 400
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 gcacctgggg atgtctctgt tagagacaga tggatgaggg ggattcatgg 500
 tgagctaagg agagggtggt ggcagtgtct ctgaagggtc ataaaagaaa 550
 aaagagaagt gtggaaggg aaaatggtct gtgtggaggg gtcaaggagt 600
 taaaaaccct agaaagcaaa aggtaggtaa tgtcaggagg tagtcttcac 650
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<210> 126

<211> 124

<212> PRT

<213> Homosapiens

<400> 126

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Leu Thr Gly Leu Cys Ser Pro Phe Asn Leu Asp Glu His His Pro
 20 25 30

Arg Leu Phe Pro Gly Pro Pro Glu Ala Glu Phe Gly Tyr Ser Val
 35 40 45

Leu Gln His Val Gly Gly Gly Gln Arg Trp Met Leu Val Gly Ala
 50 55 60

Pro	Trp	Asp	Gly	Pro	Ser	Gly	Asp	Arg	Arg	Gly	Asp	Val	Tyr	Arg
				65					70					75
Cys	Pro	Val	Gly	Gly	Ala	His	Asn	Ala	Pro	Cys	Ala	Lys	Gly	His
				80					85					90
Leu	Gly	Asp	Tyr	Gln	Leu	Gly	Asn	Ser	Ser	His	Pro	Ala	Val	Asn
				95					100					105
Met	His	Leu	Gly	Met	Ser	Leu	Leu	Glu	Thr	Asp	Gly	Asp	Gly	Gly
				110					115					120
Phe	Met	Val	Ser											

<210> 127

<211> 1523

<212> DNA

<213> Homosapiens

<400> 127

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caaataccca accctcaaat tgtttcgtaa tgggatgatg atgaagagag 500
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atacagaaag tttagaaata ttccagaatg aagtagctcg gcaattaata 1000
agtgaaaaaa gtacaataaa ctttttcatat gccgattgtg acaaaatttg 1050

acatcctctt ctgcacatac agaaaactcc agcagattgt cctgtaatcg 1100
 ctattgacag ctttaggcac atgtatgtgt ttggagactt caaagatgta 1150
 ttaattcctg gaaaactcaa gcaattcgta ttgacttac attctgaaaa 1200
 actgcacaga gaattccatc atggacctga cccaactgat acagccccag 1250
 gagagcaagc ccaagatgta gcaagcagtc cacctgagag ctccctccag 1300
 aaactagcac ccagtgaata taggtatact ctattgaggg atcgagatga 1350
 gctttaaaaa cttgaaaaac agtttgtaag cctttcaaca gcagcatcaa 1400
 cctacgtggt ggaaatagta aacctatatt ttcataattc tatgtgtatt 1450
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 aaaaaaaaaa aaaaaaaaaa aaa 1523

<210> 128
 <211> 406
 <212> PRT
 <213> Homosapiens

<400> 128
 Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser
 1 5 10 15
 Leu Leu Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu
 20 25 30
 Ile Thr Ser Leu Ala Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn
 35 40 45
 Ala Asp Val Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe
 50 55 60
 Ser Gln Met Leu His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile
 65 70 75
 Lys Glu Glu Phe Pro Asn Glu Asn Gln Val Val Phe Ala Arg Val
 80 85 90
 Asp Cys Asp Gln His Ser Asp Ile Ala Gln Arg Tyr Arg Ile Ser
 95 100 105
 Lys Tyr Pro Thr Leu Lys Leu Phe Arg Asn Gly Met Met Met Lys
 110 115 120
 Arg Glu Tyr Arg Gly Gln Arg Ser Val Lys Ala Leu Ala Asp Tyr
 125 130 135
 Ile Arg Gln Gln Lys Ser Asp Pro Ile Gln Glu Ile Arg Asp Leu
 140 145 150
 Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys Arg Asn Ile Ile Gly
 155 160 165
 Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg Val Phe Glu Arg
 170 175 180
 Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu Ser Ala Phe

	185		190		195
Gly Asp Val Ser	Lys Pro Glu Arg Tyr	Ser Gly Asp Asn Ile	Ile		
	200		205		210
Tyr Lys Pro Pro	Gly His Ser Ala Pro	Asp Met Val Tyr Leu	Gly		
	215		220		225
Ala Met Thr Asn	Phe Asp Val Thr Tyr	Asn Trp Ile Gln Asp	Lys		
	230		235		240
Cys Val Pro Leu	Val Arg Glu Ile Thr	Phe Glu Asn Gly Glu	Glu		
	245		250		255
Leu Thr Glu Glu	Gly Leu Pro Phe Leu	Ile Leu Phe His Met	Lys		
	260		265		270
Glu Asp Thr Glu	Ser Leu Glu Ile Phe	Gln Asn Glu Val Ala	Arg		
	275		280		285
Gln Leu Ile Ser	Glu Lys Gly Thr Ile	Asn Phe Leu His Ala	Asp		
	290		295		300
Cys Asp Lys Phe	Arg His Pro Leu Leu	His Ile Gln Lys Thr	Pro		
	305		310		315
Ala Asp Cys Pro	Val Ile Ala Ile Asp	Ser Phe Arg His Met	Tyr		
	320		325		330
Val Phe Gly Asp	Phe Lys Asp Val Leu	Ile Pro Gly Lys Leu	Lys		
	335		340		345
Gln Phe Val Phe	Asp Leu His Ser Gly	Lys Leu His Arg Glu	Phe		
	350		355		360
His His Gly Pro	Asp Pro Thr Asp Thr	Ala Pro Gly Glu Gln	Ala		
	365		370		375
Gln Asp Val Ala	Ser Ser Pro Pro Glu	Ser Ser Phe Gln Lys	Leu		
	380		385		390
Ala Pro Ser Glu	Tyr Arg Tyr Thr Leu	Leu Arg Asp Arg Asp	Glu		
	395		400		405

Leu

<210> 129

<211> 1575

<212> DNA

<213> Homosapiens

<400> 129

gagcaggacg gagccatgga ccccgccagg aaagcagggtg cccaggccat 50
gatctggact gcaggctggc tgcgtgctgct gctgcttcgc ggaggagcgc 100
aggcccttga gtgctacagc tgcgtgcaga aagcagatga cggatgctcc 150
ccgaacaaga tgaagacagt gaagtgcgcg ccgggcgctgg acgtctgcac 200
cgaggccctg ggggcggtgg agaccatcca cgacaattc tcgctggcag 250

tgcgggggttg	cgggttcggga	ctccccgcga	agaatgaccg	cggcctggat	300
cttcacgggc	ttctggcggt	catccagctg	cagcaatgcg	ctcaggatcg	350
ctgcaacgcc	aagctcaacc	tcacctcgcg	ggcgctcgac	ccggcaggta	400
atgagagatgc	ataccgcgcc	aacggcggtg	agtgctacag	ctgtgtgggc	450
ctgagccggg	aggcgtgcca	gggtacatcg	ccgccggtcg	tgagctgcta	500
caacgccagc	gatcatgtct	acaaggcgct	cttcgacggc	aacgtcacct	550
tgacggcagc	taatgtgact	gtgtccttgc	ctgtccgggg	ctgtgtccag	600
gatgaattct	gcactcggga	tggagtaaca	ggcccagggt	tcacgctcag	650
tggctcctgt	tgccagggggt	cccgctgtaa	ctctgacctc	cgaacaaga	700
cctactttct	ccctcgaatc	ccacccttgc	tccggctgcc	ccctccagag	750
cccacgactg	tggcctcaac	cacatctgtc	accacttcta	cctcggtccc	800
agtgagaccc	acatccacca	ccaaacccat	gccagcgcca	accagtcaga	850
ctccgagaca	gggagtagaa	cacgaggcct	cccggtatga	ggagcccagg	900
ttgactggag	gcgccgctgg	ccaccaggac	cgcagcaatt	cagggcagta	950
tcttcgaaaa	ggggggcccc	agcagcccca	taataaaggc	tgtgtggctc	1000
ccacagctgg	attggcagcc	cttctgttgg	ccgtggctgc	tgtgtctcta	1050
ctgtgagcgt	ctccacctgg	aaatttccct	ctcacctact	tctctggccc	1100
tgggtacccc	tcttctcctc	acttctctgt	cccaccactg	gactgggctg	1150
gccacgcccc	tgtttttcca	acattcccca	gtatccccag	cttctgtctg	1200
gctgttttgc	ggcttttgga	aataaaaatac	cgttgtatat	attctgccag	1250
gggtgtttcta	gcttttttag	gacagctcct	gtatccttct	catccttctc	1300
tctccgcttg	tctctttgtg	atgttaggac	agagtgagag	aagtcagctg	1350
tcacggggaa	ggtgagagag	aggatgctaa	gcttcctact	cacttttctc	1400
tagccagcct	ggacttttga	gcgtgggggtg	ggtggggcaa	tggctcccca	1450
ctctaagcac	tgctctccct	actccccgca	tctttgggga	atcggttccc	1500
catatgtctt	ccttactaga	ctgtgagctc	ctcgaggggg	ggcccggtac	1550
ccaattcqqc	ctatagtgaq	tcqta	1575		

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<210> 130
<211> 346
<212> PRT
<213> Homosapiens
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<400> 130
Met Asp Pro Ala Arg Lys Ala Gly Ala Gln Ala Met Ile Trp Thr
  1             5             10             15
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Ala Gly Trp Leu Leu Leu Leu Leu Arg Gly Gly Ala Gln Ala
 20 25 30
 Leu Glu Cys Tyr Ser Cys Val Gln Lys Ala Asp Asp Gly Cys Ser
 35 40 45
 Pro Asn Lys Met Lys Thr Val Lys Cys Ala Pro Gly Val Asp Val
 50 55 60
 Cys Thr Glu Ala Val Gly Ala Val Glu Thr Ile His Gly Gln Phe
 65 70 75
 Ser Leu Ala Val Arg Gly Cys Gly Ser Gly Leu Pro Gly Lys Asn
 80 85 90
 Asp Arg Gly Leu Asp Leu His Gly Leu Leu Ala Phe Ile Gln Leu
 95 100 105
 Gln Gln Cys Ala Gln Asp Arg Cys Asn Ala Lys Leu Asn Leu Thr
 110 115 120
 Ser Arg Ala Leu Asp Pro Ala Gly Asn Glu Ser Ala Tyr Pro Pro
 125 130 135
 Asn Gly Val Glu Cys Tyr Ser Cys Val Gly Leu Ser Arg Glu Ala
 140 145 150
 Cys Gln Gly Thr Ser Pro Pro Val Val Ser Cys Tyr Asn Ala Ser
 155 160 165
 Asp His Val Tyr Lys Gly Cys Phe Asp Gly Asn Val Thr Leu Thr
 170 175 180
 Ala Ala Asn Val Thr Val Ser Leu Pro Val Arg Gly Cys Val Gln
 185 190 195
 Asp Glu Phe Cys Thr Arg Asp Gly Val Thr Gly Pro Gly Phe Thr
 200 205 210
 Leu Ser Gly Ser Cys Cys Gln Gly Ser Arg Cys Asn Ser Asp Leu
 215 220 225
 Arg Asn Lys Thr Tyr Phe Ser Pro Arg Ile Pro Pro Leu Val Arg
 230 235 240
 Leu Pro Pro Pro Glu Pro Thr Thr Val Ala Ser Thr Thr Ser Val
 245 250 255
 Thr Thr Ser Thr Ser Ala Pro Val Arg Pro Thr Ser Thr Thr Lys
 260 265 270
 Pro Met Pro Ala Pro Thr Ser Gln Thr Pro Arg Gln Gly Val Glu
 275 280 285
 His Glu Ala Ser Arg Asp Glu Glu Pro Arg Leu Thr Gly Gly Ala
 290 295 300
 Ala Gly His Gln Asp Arg Ser Asn Ser Gly Gln Tyr Pro Ala Lys
 305 310 315
 Gly Gly Pro Gln Gln Pro His Asn Lys Gly Cys Val Ala Pro Thr
 320 325 330

Ala Gly Leu Ala Ala Leu Leu Leu Ala Val Ala Ala Gly Val Leu
 335 340 345

Leu

<210> 131
 <211> 415
 <212> DNA
 <213> Homosapiens

<400> 131
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 cctcctggtg ctccactctg cccaggggag caccctgggt ggtcctgagg 100
 aagaaagcac cattgagaat tatgcgtcac gacccgaggc ctttaacacc 150
 ccgttctcga acatcgacaa attgcgatct gcgtttaagg ctgatgagtt 200
 cctgaactgg cagccctctt ttgagtctat caaaaggaaa cttcctttcc 250
 tcaactggga tgcccttcct aagctgaaag gactgaggag cgcaactcct 300
 gatgccagtg gaccatgacc tccactggaa gagggggcta gcgtgagcgc 350
 tgattctcaa cctaccataa ctctttcctg cctcaggaac tccaataaaa 400
 cattttccat ccaa 415

<210> 132
 <211> 99
 <212> PRT
 <213> Homosapiens

<400> 132
 Met Lys Ile Pro Val Leu Pro Ala Val Val Leu Leu Ser Leu Leu
 1 5 10 15
 Val Leu His Ser Ala Gln Gly Ala Thr Leu Gly Gly Pro Glu Glu
 20 25 30
 Glu Ser Thr Ile Glu Asn Tyr Ala Ser Arg Pro Glu Ala Phe Asn
 35 40 45
 Thr Pro Phe Leu Asn Ile Asp Lys Leu Arg Ser Ala Phe Lys Ala
 50 55 60
 Asp Glu Phe Leu Asn Trp His Ala Leu Phe Glu Ser Ile Lys Arg
 65 70 75
 Lys Leu Pro Phe Leu Asn Trp Asp Ala Phe Pro Lys Leu Lys Gly
 80 85 90
 Leu Arg Ser Ala Thr Pro Asp Ala Gln
 95

<210> 133
 <211> 678
 <212> DNA
 <213> Homosapiens

<400> 133

cagttctgaa atcaatggag ttaatttagg gaatacaaac cagccatggg 50
 ggtggagatt gcctttgcct cagtgttctt cacctgcctc tcccttctgg 100
 cagcaggagt ctcccagggt gttcttctcc agccagttcc aactcaggag 150
 acaggtccca aggccatggg agatctctcc tgtggctttg ccggccactc 200
 atgagagtgt ttttgtgtaa agtatttttt agaatactgt tgacttcttc 250
 atgatttaat aaccatcctt tgcgaagttt tatgaggctt taggggaatg 300
 tcaaccctca aatttttggt atactagatg gcttccattt acccaccact 350
 attttaaggc cccttttatt ttaggttcaa gggttcattg acttgagaaa 400
 gtgccctctt gcagcttcat tgattttggt tatcttcaact attaattgta 450
 acgattaaaa aagaataaga gcacgcagac ctctaggaga atattttatc 500
 cctgggtgcc cctgacacat ttatgtagtg atcccacaaa tgtgattggt 550
 aatttaaatg ttattctaatt attagtacat tcagttgtga tgaatatgta 600
 ataaccagaa tctatttctt aaaagttttg agtatatttt tcaactagat 650
 atttgtatag aaagactgaa tagtgatg 678

<210> 134
 <211> 52
 <212> PRT
 <213> Homosapiens

<400> 134
 Met Gly Val Glu Ile Ala Phe Ala Ser Val Ile Leu Thr Cys Leu
 1 5 10 15
 Ser Leu Leu Ala Ala Gly Val Ser Gln Val Val Leu Leu Gln Pro
 20 25 30
 Val Pro Thr Gln Glu Thr Gly Pro Lys Ala Met Gly Asp Leu Ser
 35 40 45
 Cys Gly Phe Ala Gly His Ser
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<210> 135
 <211> 1917
 <212> DNA
 <213> Homosapiens

<400> 135
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 gcttcggctc tggctgctgt tgttctctct gccctcagcg cagggccgcc 100
 agaaggagtc aggttcaaaa tggaaagtat ttattgacca aattaacagg 150
 tctttggaga attacgaacc atgttcaagt caaaactgca gctgctacca 200
 tgggtgcata gaagaggatc taactccttt ccgaggaggc atctccagga 250
 agatgatggc agaggtagtc agacggaagc tagggaccca ctatcatgatc 300

actaagaaca gactgtaccg ggaaaaatgac tgcattgttc cctcaagggtg 350
 tagtggtggt gagcacttta ttttggaagt gatcgggctg ctccctgaca 400
 tggagatggt gatcaatgta cgagattatc ctacaggttc taaatggatg 450
 gagcctgcc tcccagtctt ctcttcagt aagacatcag agtaccatga 500
 tatcatgtat cctgcttggg cattttggga agggggacct gctgtttggc 550
 caatttatcc tacaggtctt ggacgttggg acctcttcag agaagatctg 600
 gtaaggtcag cagcacagtg gccatggaaa aagaaaaact ctacagcata 650
 tttccgagga tcaaggacaa gtccagaacg agatcctctc attctctctg 700
 ctcggaaaaa cccaaaactt gttgatgcag aatacaccaa aaaccaggcc 750
 tggaaatcta tgaaagatac cttaggaaa gacagctgcta aggatgtcca 800
 tcttggtgat cactgcaaat acaagtatct gtttaatttt cgaggcgtag 850
 ctgcaagttt cgggtttaaa cacctcttcc tgtgtggctc actgttttc 900
 catgttggtg atgagtggct agaattcttc tatccacagc tgaagccatg 950
 ggttccactat atcccagtc aaacagatct ctccaatgct caagagctgt 1000
 tacaatttgt aaaaagcaaat gatgatgtag ctcaagagat tegtgaagg 1050
 ggaagccagt ttattaggaa ccatttgcag atggatgaca tcacctgtta 1100
 ctgggagaac ctcttgagtg aataacttaa attcctgtct tataatgtaa 1150
 cgagaaggaa aggttatgat caaattatlc ccaaatgtt gaaaactgaa 1200
 ctatagtagt catcatagga ccatagtcct cttgtggca acagatctca 1250
 gatctcctac ggtgagaagc ttaccataag cttggctcct atacctgaa 1300
 tatctgtctat caagccaaat acctgttttt ccttatcatg ctgaccccag 1350
 agcaactctt gagaaagatt taaaatgtgt ctaatacact gatatgaagc 1400
 agttcaactt ttggatgaa taaggaccag aaatcgtgag atgtggattt 1450
 tgaacccaac tctaccttc attttcttaa gaccaatcac agcttgtgcc 1500
 tcagatcacc cacctgtgtg agtccatcac tgtgaaattg actgtgtcca 1550
 tgtgatgatg cccttgtcc cattatttg agcagaaaaat tcgtcatttg 1600
 gaagtagtac aactcattgc tggaaattgt aaattattca aggcgtgatc 1650
 tctgtcactt tttttaatg taggaaaccc tatgggttt atgaaaaata 1700
 cttggggatc attctctgaa tggctaaagg aagcgttagc catgccatgc 1750
 aatgatgtag gaggttctct ttgtaaaacc ataaactctg ttactcagga 1800
 ggtttctata atgccacata gaaagagccc aattgcatga gtaattattg 1850
 caattggatt tcaggttccc tttttgtgcc ttcatgccct acttcttaat 1900

gcctctcttaa agccaaa 1917

<210> 136

<211> 392

<212> PRT

<213> Homosapiens

<400> 136

Met	Glu	Trp	Trp	Ala	Ser	Ser	Pro	Leu	Arg	Leu	Trp	Leu	Leu	Leu	1	5				10					15
Phe	Leu	Leu	Pro	Ser	Ala	Gln	Gly	Arg	Gln	Lys	Glu	Ser	Gly	Ser	20					25					30
Lys	Trp	Lys	Val	Phe	Ile	Asp	Gln	Ile	Asn	Arg	Ser	Leu	Glu	Asn	35					40					45
Tyr	Glu	Pro	Cys	Ser	Ser	Gln	Asn	Cys	Ser	Cys	Tyr	His	Gly	Val	50					55					60
Ile	Glu	Glu	Asp	Leu	Thr	Pro	Phe	Arg	Gly	Gly	Ile	Ser	Arg	Lys	65					70					75
Met	Met	Ala	Glu	Val	Val	Arg	Arg	Lys	Leu	Gly	Thr	His	Tyr	Gln	80					85					90
Ile	Thr	Lys	Asn	Arg	Leu	Tyr	Arg	Glu	Asn	Asp	Cys	Met	Phe	Pro	95					100					105
Ser	Arg	Cys	Ser	Gly	Val	Glu	His	Phe	Ile	Leu	Glu	Val	Ile	Gly	110					115					120
Arg	Leu	Pro	Asp	Met	Glu	Met	Val	Ile	Asn	Val	Arg	Asp	Tyr	Pro	125					130					135
Gln	Val	Pro	Lys	Trp	Met	Glu	Pro	Ala	Ile	Pro	Val	Phe	Ser	Phe	140					145					150
Ser	Lys	Thr	Ser	Glu	Tyr	His	Asp	Ile	Met	Tyr	Pro	Ala	Trp	Thr	155					160					165
Phe	Trp	Glu	Gly	Gly	Pro	Ala	Val	Trp	Pro	Ile	Tyr	Pro	Thr	Gly	170					175					180
Leu	Gly	Arg	Trp	Asp	Leu	Phe	Arg	Glu	Asp	Leu	Val	Arg	Ser	Ala	185					190					195
Ala	Gln	Trp	Pro	Trp	Lys	Lys	Lys	Asn	Ser	Thr	Ala	Tyr	Phe	Arg	200					205					210
Gly	Ser	Arg	Thr	Ser	Pro	Glu	Arg	Asp	Pro	Leu	Ile	Leu	Leu	Ser	215					220					225
Arg	Lys	Asn	Pro	Lys	Leu	Val	Asp	Ala	Glu	Tyr	Thr	Lys	Asn	Gln	230					235					240
Ala	Trp	Lys	Ser	Met	Lys	Asp	Thr	Leu	Gly	Lys	Pro	Ala	Ala	Lys	245					250					255
Asp	Val	His	Leu	Val	Asp	His	Cys	Lys	Tyr	Lys	Tyr	Leu	Phe	Asn	260					265					270
Phe	Arg	Gly	Val	Ala	Ala	Ser	Phe	Arg	Phe	Lys	His	Leu	Phe	Leu											

275	280	285
Cys Gly Ser Leu Val Phe His Val Gly	Asp Glu Trp Leu Glu Phe	
290	295	300
Phe Tyr Pro Gln Leu Lys Pro Trp Val	His Tyr Ile Pro Val Lys	
305	310	315
Thr Asp Leu Ser Asn Val Gln Glu Leu	Leu Gln Phe Val Lys Ala	
320	325	330
Asn Asp Asp Val Ala Gln Glu Ile Ala	Glu Arg Gly Ser Gln Phe	
335	340	345
Ile Arg Asn His Leu Gln Met Asp Asp	Ile Thr Cys Tyr Trp Glu	
350	355	360
Asn Leu Leu Ser Glu Tyr Ser Lys Phe	Leu Ser Tyr Asn Val Thr	
365	370	375
Arg Arg Lys Gly Tyr Asp Gln Ile Ile	Pro Lys Met Leu Lys Thr	
380	385	390
Glu Leu		

<210> 137
 <211> 662
 <212> DNA
 <213> Homosapiens

<400> 137
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 ctcttgctcg ctggataaca gtcttctctc tccagtgttc aaaaggaact 100
 acagacgctc ctgttggtc aggactgttg ctgtgccagc cgacacccag 150
 gtgtgggaac aagatctaca acccttcaga gcagtgtctg tatgatgatg 200
 ccatcttctc cttaaaggag acccgccgct gtggtctcac ctgcaccttc 250
 tggccctgct ttgagctctg ctgtcccag tcttttggtc cccagcagaa 300
 gtttcttgag aagttgaggg ttctgggtat gaagtctcag tgtcacttat 350
 ctcccatctc ccggagctgt accaggaaca ggaggcacgt cctgtacca 400
 taaaaacccc aggtccact ggcagacgag agacaaggag agaagagagc 450
 aagcagctgg acatcgga ctacagttga acttcggaga gaagcaactt 500
 gacttcagag ggaatggtca atgacatagc ttggagagag agcccagctg 550
 gggatggcca gacttcaggg gaagaatgcc ttcctgcttc atcccccttc 600
 cagctccctc tcccgctgag agccactttc atcggaata aaatccccca 650
 catttaccat ct 662

<210> 138
 <211> 125
 <212> PRT

<213> Homosapiens

<400> 138

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Met Arg Pro Arg Cys Cys Ile Leu Ala Leu Val Cys Trp Ile Thr
 1           5           10
Val Phe Leu Leu Gln Cys Ser Lys Gly Thr Thr Asp Ala Pro Val
          20           25           30
Gly Ser Gly Leu Trp Leu Cys Gln Pro Thr Pro Arg Cys Gly Asn
          35           40           45
Lys Ile Tyr Asn Pro Ser Glu Gln Cys Cys Tyr Asp Asp Ala Ile
          50           55           60
Leu Ser Leu Lys Glu Thr Arg Arg Cys Gly Ser Thr Cys Thr Phe
          65           70           75
Trp Pro Cys Phe Glu Leu Cys Cys Pro Glu Ser Phe Gly Pro Gln
          80           85           90
Gln Lys Phe Leu Val Lys Leu Arg Val Leu Gly Met Lys Ser Gln
          95          100          105
Cys His Leu Ser Pro Ile Ser Arg Ser Cys Thr Arg Asn Arg Arg
          110          115          120
His Val Leu Tyr Pro
          125

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<210> 139

<211> 745

<212> DNA

<213> Homosapiens

<400> 139

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cctctgtcca ctgctttcgt gaagacaaga tgaagttcac aattgtcttt 50
gctggacttc ttggagtctt tctagctcct gccctagcta actataatat 100
caacgtcaat gatgacaaca acaatgctgg aagtgggcag cagtcaagtga 150
gtgtcaacaa tgaacacaat gtggccaatg ttgacaataa caacggatgg 200
gactcctgga attccatctg ggattatgga aatggctttg ctgcaaccag 250
actctttcaa aagaagacat gcattgtgca caaaatgaac aaggaagtca 300
tgccctccat tcaatccctt gatgactgg tcaaggaaaa gaagcttcag 350
ggtaagggac caggaggacc acctcccaag ggcctgatgt actcagtcaa 400
cccaaacaaa gtcgatgacc tgagcaagtt cggaaaaaac attgcaaaaa 450
tgtgtcgtgg gattccaaca tacatggctg aggagatgca agaggcaagc 500
ctgttttttt actcaggaac gtgctacacg accagtgtag tatggattgt 550
ggacatttcc ttctgtggag acacggtgga gaactaaaca attttttaaa 600
gccactatgg atttagtcat ctgaatatgc tgtgcagaaa aaatatgggc 650
tccagtggtt ttaccatgt cattctgaaa ttttctcta ctagtattgt 700

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ttgatttctt taagtttcaa taaaatcatt tagcattgaa aaaaa 745

<210> 140

<211> 185

<212> PRT

<213> Homosapiens

<400> 140

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Met Lys Phe Thr Ile Val Phe Ala Gly Leu Leu Gly Val Phe Leu
  1           5           10           15
Ala Pro Ala Leu Ala Asn Tyr Asn Ile Asn Val Asn Asp Asp Asn
          20           25           30
Asn Asn Ala Gly Ser Gly Gln Gln Ser Val Ser Val Asn Asn Glu
          35           40           45
His Asn Val Ala Asn Val Asp Asn Asn Asn Gly Trp Asp Ser Trp
          50           55           60
Asn Ser Ile Trp Asp Tyr Gly Asn Gly Phe Ala Ala Thr Arg Leu
          65           70           75
Phe Gln Lys Lys Thr Cys Ile Val His Lys Met Asn Lys Glu Val
          80           85           90
Met Pro Ser Ile Gln Ser Leu Asp Ala Leu Val Lys Glu Lys Lys
          95          100          105
Leu Gln Gly Lys Gly Pro Gly Gly Pro Pro Pro Lys Gly Leu Met
          110          115          120
Tyr Ser Val Asn Pro Asn Lys Val Asp Asp Leu Ser Lys Phe Gly
          125          130          135
Lys Asn Ile Ala Asn Met Cys Arg Gly Ile Pro Thr Tyr Met Ala
          140          145          150
Glu Glu Met Gln Glu Ala Ser Leu Phe Phe Tyr Ser Gly Thr Cys
          155          160          165
Tyr Thr Thr Ser Val Leu Trp Ile Val Asp Ile Ser Phe Cys Gly
          170          175          180
Asp Thr Val Glu Asn
          185

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<210> 141

<211> 1297

<212> DNA

<213> Homosapiens

<400> 141

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ctctctttgc tatgacatca ccgtcatccc taagttcaga cctggaccac 150
ggtggtgtgc ggttcaaggc caggtgcatg aaaagacttt tcttcactat 200
gactgtggca acaagacagt cacacctgtc agtcccctgg ggaagaaact 250

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aaatgtcaca acggcctgga aagcacagaa ccagtgactg agagagggtg 300
 tggacatact tacagagcaa ctgcgtgaca ttcagctgga gaattacaca 350
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 cttctctttt tgtttgaaa atcaagtact tctttgaatg atgactctt 1100
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<210> 142
 <211> 246
 <212> PRT
 <213> Homosapiens

<400> 142
 Met Ala Ala Ala Ala Thr Lys Ile Leu Leu Cys Leu Pro Leu
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 Leu Leu Leu Leu Ser Gly Trp Ser Arg Ala Gly Arg Ala Asp Pro
 20 25 30
 His Ser Leu Cys Tyr Asp Ile Thr Val Ile Pro Lys Phe Arg Pro
 35 40 45
 Gly Pro Arg Trp Cys Ala Val Gln Gly Gln Val Asp Glu Lys Thr
 50 55 60
 Phe Leu His Tyr Asp Cys Gly Asn Lys Thr Val Thr Pro Val Ser
 65 70 75

Pro Leu Gly Lys Lys Leu Asn Val Thr Thr Ala Trp Lys Ala Gln
 80 85 90
 Asn Pro Val Leu Arg Glu Val Val Asp Ile Leu Thr Glu Gln Leu
 95 100 105
 Arg Asp Ile Gln Leu Glu Asn Tyr Thr Pro Lys Glu Pro Leu Thr
 110 115 120
 Leu Gln Ala Arg Met Ser Cys Glu Gln Lys Ala Glu Gly His Ser
 125 130 135
 Ser Gly Ser Trp Gln Phe Ser Phe Asp Gly Gln Ile Phe Leu Leu
 140 145 150
 Phe Asp Ser Glu Lys Arg Met Trp Thr Thr Val His Pro Gly Ala
 155 160 165
 Arg Lys Met Lys Glu Lys Trp Glu Asn Asp Lys Val Val Ala Met
 170 175 180
 Ser Phe His Tyr Phe Ser Met Gly Asp Cys Ile Gly Trp Leu Glu
 185 190 195
 Asp Phe Leu Met Gly Met Asp Ser Thr Leu Glu Pro Ser Ala Gly
 200 205 210
 Ala Pro Leu Ala Met Ser Ser Gly Thr Thr Gln Leu Arg Ala Thr
 215 220 225
 Ala Thr Thr Leu Ile Leu Cys Cys Leu Leu Ile Ile Leu Pro Cys
 230 235 240
 Phe Ile Leu Pro Gly Ile
 245

<210> 143

<211> 1869

<212> DNA

<213> Homosapiens

<400> 143

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 gcaactcctg gcacactgct cctctttctg gctttcctgc tctgagttc 200
 caggaccgca cgctccgagg aggaccggga cggcctatgg gatgcctggg 250
 gcccatggag tgaatgtctc cgcacctgcg ggggaggggc ctccctactct 300
 ctgaggcgct gcctgagcag caagagctgt gaaggaagaa atatccgata 350
 cagaacatgc agtaatgtgg actgccacc agaagcaggt gatttccgag 400
 ctccagcaatg ctccagctcat aatgatgtca agcaccatgg ccagttttat 450
 gaatggcttc ctgtgtctaa tgaccctgac aaccatgtt cactcaagtg 500
 ccaagccaaa ggaacaaccc tggttgttga actagcacct aaggtcttag 550

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tgccaaattg	ttggctgcga	tcaccagctg	ggaagcaccg	tcaaggaaga	650
taactgtggg	gtctgcaacg	gagatgggtc	cacctgccgg	ctgggtccgag	700
ggcagtataa	atccacagtc	tccgcaacca	aatcggatga	tactgtgggt	750
gcacttcctt	atggaagtga	acatatctgc	cttgtcttaa	aaggtcctga	800
tcacttatat	ctggaaacca	aaaccttcca	ggggactaaa	ggtgaaaaca	850
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cagaaatttc	cagacaaaga	gatactgaga	atggctggac	cactcacagc	950
agatttcatt	gtcaagattc	gtaactcggg	ctccgctgac	agtacagctc	1000
agttcatctt	ctatcaaccc	atcatccacc	gatggaggga	gacggatttc	1050
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cctcgtgtgg	ggggggcctc	cagagccggg	cagtttctct	tgtggaggag	1350
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gtttaaagaa	agcagtggtc	cactggttgt	agctttcatg	ggttctgaac	1800
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<210> 144
<211> 525
<212> PRT
<213> Homosapiens
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<400> 144
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  1             5             10             15
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 Asp Arg Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys
 35 40 45
 Ser Arg Thr Cys Gly Gly Gly Ala Ser Tyr Ser Leu Arg Arg Cys
 50 55 60
 Leu Ser Ser Lys Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg Thr
 65 70 75
 Cys Ser Asn Val Asp Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala
 80 85 90
 Gln Gln Cys Ser Ala His Asn Asp Val Lys His His Gly Gln Phe
 95 100 105
 Tyr Glu Trp Leu Pro Val Ser Asn Asp Pro Asp Asn Pro Cys Ser
 110 115 120
 Leu Lys Cys Gln Ala Lys Gly Thr Thr Leu Val Val Glu Leu Ala
 125 130 135
 Pro Lys Val Leu Asp Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp
 140 145 150
 Met Cys Ile Ser Gly Leu Cys Gln Ile Val Gly Cys Asp His Gln
 155 160 165
 Leu Gly Ser Thr Val Lys Glu Asp Asn Cys Gly Val Cys Asn Gly
 170 175 180
 Asp Gly Ser Thr Cys Arg Leu Val Arg Gln Tyr Lys Ser Gln
 185 190 195
 Leu Ser Ala Thr Lys Ser Asp Asp Thr Val Val Ala Leu Pro Tyr
 200 205 210
 Gly Ser Arg His Ile Arg Leu Val Leu Lys Gly Pro Asp His Leu
 215 220 225
 Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys Gly Glu Asn Ser
 230 235 240
 Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser Ser Val Asp
 245 250 255
 Phe Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala Gly Pro
 260 265 270
 Leu Thr Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser Ala
 275 280 285
 Asp Ser Thr Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg
 290 295 300
 Trp Arg Glu Thr Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly
 305 310 315
 Gly Tyr Gln Leu Thr Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn
 320 325 330

Arg Val Val Ala	Asp Gln Tyr Cys His	Tyr Tyr Pro Glu Asn Ile
335		345
Lys Pro Lys Pro	Lys Leu Gln Glu Cys	Asn Leu Asp Pro Cys Pro
350		360
Ala Ser Asp Gly	Tyr Lys Gln Ile Met	Pro Tyr Asp Leu Tyr His
365		375
Pro Leu Pro Arg	Trp Glu Ala Thr Pro	Trp Thr Ala Cys Ser Ser
380		390
Ser Cys Gly Gly	Gly Ile Gln Ser Arg	Ala Val Ser Cys Val Glu
395		405
Glu Asp Ile Gln	Gly His Val Thr Ser	Val Glu Glu Trp Lys Cys
410		420
Met Tyr Thr Pro	Lys Met Pro Ile Ala	Gln Pro Cys Asn Ile Phe
425		435
Asp Cys Pro Lys	Trp Leu Ala Gln Glu	Trp Ser Pro Cys Thr Val
440		450
Thr Cys Gly Gln	Gly Leu Arg Tyr Arg	Val Val Leu Cys Ile Asp
455		465
His Arg Gly Met	His Thr Gly Gly Cys	Ser Pro Lys Thr Lys Pro
470		480
His Ile Lys Glu	Glu Cys Ile Val Pro	Thr Pro Cys Tyr Lys Pro
485		495
Lys Glu Lys Leu	Pro Val Glu Ala Lys	Leu Pro Trp Phe Lys Gln
500		510
Ala Gln Glu Leu	Glu Glu Gly Ala Ala	Val Ser Glu Glu Pro Ser
515		525

<210> 145

<211> 1969

<212> DNA

<213> Homosapiens

<400> 145

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cgggagcacc cagtccctgta cgccaaggaa ctggtcctgg gggcaccatg 150
gtttcgggcg cagccccccag cctcctcctc ctctctgttg tgctgtgtgg 200
gtctgtgctt gctaccgacg ccgctctgtg gcccttgaag gccacgttcc 250
tggaggatgt ggcggttagt ggggagggcg agggctcgtc ggccctcctcc 300
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<210> 146

<211> 283
 <212> PRT
 <213> Homosapiens

<400> 146

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Leu	Leu	Gly	Ser	Val	Pro	Ala	Thr	Asp	Ala	Arg	Ser	Val	Pro	Leu	
				20					25					30	
Lys	Ala	Thr	Phe	Leu	Glu	Asp	Val	Ala	Gly	Ser	Gly	Glu	Ala	Gly	
				35					40					45	
Gly	Ser	Ser	Ala	Ser	Ser	Pro	Ser	Leu	Pro	Pro	Pro	Trp	Thr	Pro	
				50					55					60	
Ala	Leu	Ser	Pro	Thr	Ser	Met	Gly	Pro	Gln	Pro	Thr	Thr	Leu	Gly	
				65					70					75	
Gly	Pro	Ser	Pro	Pro	Thr	Asn	Phe	Leu	Asp	Gly	Ile	Val	Asp	Phe	
				80					85					90	
Phe	Arg	Gln	Tyr	Val	Met	Leu	Ile	Ala	Val	Val	Gly	Ser	Leu	Ala	
				95					100					105	
Phe	Leu	Leu	Met	Phe	Ile	Val	Cys	Ala	Ala	Val	Ile	Thr	Arg	Gln	
				110					115					120	
Lys	Gln	Lys	Ala	Ser	Ala	Tyr	Tyr	Pro	Ser	Ser	Phe	Pro	Lys	Lys	
				125					130					135	
Lys	Tyr	Val	Asp	Gln	Ser	Asp	Arg	Ala	Gly	Gly	Pro	Arg	Ala	Phe	
				140					145					150	
Ser	Glu	Val	Pro	Asp	Arg	Ala	Pro	Asp	Ser	Arg	Pro	Glu	Glu	Ala	
				155					160					165	
Leu	Asp	Ser	Ser	Arg	Gln	Leu	Gln	Ala	Asp	Ile	Leu	Ala	Ala	Thr	
				170					175					180	
Gln	Asn	Leu	Lys	Ser	Pro	Thr	Arg	Ala	Ala	Leu	Gly	Gly	Gly	Asp	
				185					190					195	
Gly	Ala	Arg	Met	Val	Glu	Gly	Arg	Gly	Ala	Glu	Glu	Glu	Glu	Lys	
				200					205					210	
Gly	Ser	Gln	Glu	Gly	Asp	Gln	Glu	Val	Gln	Gly	His	Gly	Val	Pro	
				215					220					225	
Val	Glu	Thr	Pro	Glu	Ala	Gln	Glu	Glu	Pro	Cys	Ser	Gly	Val	Leu	
				230					235					240	
Glu	Gly	Ala	Val	Val	Ala	Gly	Glu	Gly	Gln	Gly	Glu	Leu	Glu	Gly	
				245					250					255	
Ser	Leu	Leu	Leu	Ala	Gln	Glu	Ala	Gln	Gly	Pro	Val	Gly	Pro	Pro	
				260					265					270	
Glu	Ser	Pro	Cys	Ala	Cys	Ser	Ser	Val	His	Pro	Ser	Val			
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<210> 147

<211> 860
 <212> DNA
 <213> Homosapiens

<400> 147
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 aagaagctag ttctacggga aggaacttta atgtagaaaa gattaatggg 150
 gaatggcata ctattatcct ggctctgac aaaagagaaa agatagaaga 200
 acatggcaac ttagactttt ttctggagca aatccatgtc ttggagaatt 250
 ccttagttct taaagtccat actgtaagag atgaagagtg ctccgaatta 300
 tctatgggtg ctgacaaaac agaaaaggct ggtgaatatt ctgtgacgta 350
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 ttatggctca cctcattaac gaaaaggatg gggaaacctt ccagctgatg 450
 gggctctatg gccgagaacc agatttgagt tcagacatca aggaaagggt 500
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 ttgcacttaa 860

<210> 148
 <211> 180
 <212> PRT
 <213> Homosapiens

<400> 148
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 Glu Lys Ile Asn Gly Glu Trp His Thr Ile Ile Leu Ala Ser Asp
 35 40 45
 Lys Arg Glu Lys Ile Glu Glu His Gly Asn Phe Arg Leu Phe Leu
 50 55 60
 Glu Gln Ile His Val Leu Glu Asn Ser Leu Val Leu Lys Val His
 65 70 75
 Thr Val Arg Asp Glu Glu Cys Ser Glu Leu Ser Met Val Ala Asp

	80		85		90
Lys Thr Glu Lys Ala Gly Glu Tyr Ser Val Thr Tyr Asp Gly Phe					
	95		100		105
Asn Thr Phe Thr Ile Pro Lys Thr Asp Tyr Asp Asn Phe Leu Met					
	110		115		120
Ala His Leu Ile Asn Glu Lys Asp Gly Glu Thr Phe Gln Leu Met					
	125		130		135
Gly Leu Tyr Gly Arg Glu Pro Asp Leu Ser Ser Asp Ile Lys Glu					
	140		145		150
Arg Phe Ala Gln Leu Cys Glu Glu His Gly Ile Leu Arg Glu Asn					
	155		160		165
Ile Ile Asp Leu Ser Asn Ala Asn Arg Cys Leu Gln Ala Arg Glu					
	170		175		180

<210> 149
 <211> 1734
 <212> DNA
 <213> Homosapiens

<400> 149
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 agacactctg gagagagagg gggctgggca gagatgaagt tccaggggcc 200
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 caaagaggcc ggaggggcag ctggctctaa agtcagttag gcccttggcc 400
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<210> 150

<211> 440

<212> PRT

<213> Homosapiens

<400> 150

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 20 25 30

Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp
 35 40 45

Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly
 50 55 60

Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr
 65 70 75

Arg Glu Ala Val Gly Thr Gly Val Arg Gln Val Pro Gly Phe Gly
 80 85 90

Ala Ala Asp Ala Leu Gly Asn Arg Val Gly Glu Ala Ala His Ala
 95 100 105

Leu Gly Asn Thr Gly His Glu Ile Gly Arg Gln Ala Glu Asp Val
 110 115 120

Ile Arg His Gly Ala Asp Ala Val Arg Gly Ser Trp Gln Gly Val

	125		130		135
Pro Gly His Ser	Gly 140	Ala Trp Glu Thr	Ser 145	Gly Gly His Gly	Ile 150
Phe Gly Ser Gln	Gly 155	Gly Leu Gly Gly	Gln 160	Gly Gln Gly Asn	Pro 165
Gly Gly Leu Gly	Thr 170	Pro Trp Val His	Gly 175	Tyr Pro Gly Asn	Ser 180
Ala Gly Ser Phe	Gly 185	Met Asn Pro Gln	Gly 190	Ala Pro Trp Gly	Gln 195
Gly Gly Asn Gly	Gly 200	Pro Pro Asn Phe	Gly 205	Thr Asn Thr Gln	Gly 210
Ala Val Ala Gln	Pro 215	Gly Tyr Gly Ser	Val 220	Arg Ala Ser Asn	Gln 225
Asn Glu Gly Cys	Thr 230	Asn Pro Pro Pro	Ser 235	Gly Ser Gly Gly	Gly 240
Ser Ser Asn Ser	Gly 245	Gly Gly Ser Gly	Ser 250	Gln Ser Gly Ser	Ser 255
Gly Ser Gly Ser	Asn 260	Gly Asp Asn Asn	Asn 265	Gly Ser Ser Ser	Gly 270
Gly Ser Ser Ser	Gly 275	Ser Ser Ser Gly	Ser 280	Ser Ser Gly Gly	Ser 285
Ser Gly Gly Ser	Ser 290	Gly Gly Ser Ser	Gly 295	Asn Ser Gly Gly	Ser 300
Arg Gly Asp Ser	Gly 305	Ser Glu Ser Ser	Trp 310	Gly Ser Ser Thr	Gly 315
Ser Ser Ser Gly	Asn 320	His Gly Gly Ser	Gly 325	Gly Gly Asn Gly	His 330
Lys Pro Gly Cys	Glu 335	Lys Pro Gly Asn	Glu 340	Ala Arg Gly Ser	Gly 345
Glu Ser Gly Ile	Gln 350	Gly Phe Arg Gly	Gln 355	Gly Val Ser Ser	Asn 360
Met Arg Glu Ile	Ser 365	Lys Glu Gly Asn	Arg 370	Leu Leu Gly Gly	Ser 375
Gly Asp Asn Tyr	Arg 380	Gly Gln Gly Ser	Ser 385	Trp Gly Ser Gly	Gly 390
Gly Asp Ala Val	Gly 395	Gly Val Asn Thr	Val 400	Asn Ser Glu Thr	Ser 405
Pro Gly Met Phe	Asn 410	Phe Asp Thr Phe	Trp 415	Lys Asn Phe Lys	Ser 420
Lys Leu Gly Phe	Ile 425	Asn Trp Asp Ala	Ile 430	Asn Lys Asp Gln	Arg 435
Ser Ser Arg Ile	Pro				

440

<210> 151

<211> 1332

<212> DNA

<213> Homosapiens

<400> 151

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 cagaccctga tagtcgtgat catcgggatg ctctgtctcc tgtcggactt 200
 tcttggtctg gtgcacctgg gccagctgct catcttcac atctacctga 250
 gtatgtcccc caccctaagc ccccgatccc cccaaggtg ggtggtcaga 300
 gctgctcatc ttacacctct acttgagtat gtccctaacc ctgagccccc 350
 cagcgctggg gccagagtct ttgtcccccg tgtgcgcatg tgttcagggt 400
 cagcctctcc cagaagttag atcatggaca aaaagggcaa atcacaggaa 450
 gaaattaaat ccatgaggac ccagcaggcc cagcaagaag ctgaactcac 500
 gccgagacct gcaggagtgg tgccagggtc ttgaagtaac aagtttaaaa 550
 tgttcagaga caatggaatg gaatctatta ggcaagaaca ggacattatg 600
 aaataaggac aggtggactt ccaaaaacac aagtagaaat tctaacaatg 650
 aaatatatta caggcaggtc acccactaac caaacaactg aagcgagagc 700
 tgtggtcttg cttggtctca cagtgggcac agcggtaggc ggtcagtcac 750
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 acacacccca ccaagagcct cctgttctat aaccacaggt taccctacaa 1150
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<210> 152

<211> 142
 <212> PRT
 <213> Homosapiens

<400> 152

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          20          25          30
Asp Phe Leu Gly Leu Val His Leu Gly Gln Leu Leu Ile Phe His
          35          40          45
Ile Tyr Leu Ser Met Ser Pro Thr Leu Ser Pro Arg Ser Pro Gln
          50          55          60
Gly Trp Val Val Arg Ala Ala His Leu Thr Pro Leu Leu Glu Tyr
          65          70          75
Val Pro Asn Pro Glu Pro Pro Thr Pro Gly Ala Arg Val Phe Val
          80          85          90
Pro Arg Val Arg Met Cys Ser Gly Ser Ala Ser Pro Arg Ser Glu
          95          100          105
Ile Met Asp Lys Lys Gly Lys Ser Gln Glu Glu Ile Lys Ser Met
          110          115          120
Arg Thr Gln Gln Ala Gln Gln Glu Ala Glu Leu Thr Pro Arg Pro
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Ala Gly Val Val Pro Gly Ala
          140

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<210> 153
 <211> 1158
 <212> DNA
 <213> Homosapiens

<400> 153

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acctccctgt cagccagtat taacatgtcc ccttccccct gccccgcgct 550

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 cactgaaa 1158

<210> 154
 <211> 86
 <212> PRT
 <213> Homosapiens

<400> 154
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 35 40
 Arg Thr Thr Tyr Val Met Asp Val Ser Thr Asn Gln Gly Ser Gly 60
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 Ala Thr Ser Pro Pro Leu Lys Cys Ser Leu Leu 85
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<210> 155
 <211> 2694
 <212> DNA
 <213> Homosapiens

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ttacacacct ttcacctatt ccatactgca tagcaagaag attagtggtat 250
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 cgacttcagc tggcagcagt ggtgaaaaga aattactgaa ctattgtcaa 500
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<210> 156
 <211> 131
 <212> PRT
 <213> Homosapiens

<400> 156
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 35 40 45
 Pro Ile Pro Tyr Cys Ile Ala Arg Arg Leu Val Asp Asp Thr Asp
 50 55 60
 Ala Met Ser Asn Ala Cys Lys Glu Leu Ala Ile Phe Leu Thr Thr
 65 70 75
 Gly Ile Val Val Ser Ala Phe Gly Leu Pro Ile Val Phe Ala Arg
 80 85 90
 Ala His Leu Ile Glu Trp Gly Ala Cys Ala Leu Val Leu Thr Gly
 95 100 105

Asn Thr Val Ile Phe Ala Thr Ile Leu Gly Phe Phe Leu Val Phe
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Gly Ser Asn Asp Asp Phe Ser Trp Gln Gln Trp
 125 130

<210> 157
 <211> 4277
 <212> DNA
 <213> Homosapiens

<400> 157
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<210> 158
 <211> 1115
 <212> PRT
 <213> Homosapiens

<400> 158
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Asp Leu Asn Glu Val	Pro Gln Val Thr Val	Gln Pro Ala Ser Thr	45
35		40	
Val Gln Lys Pro Gly	Gly Thr Val Ile Leu	Gly Cys Val Val Glu	60
50		55	
Pro Pro Arg Met Asn	Val Thr Trp Arg Leu	Asn Gly Lys Glu Leu	75
65		70	
Asn Gly Ser Asp Asp	Ala Leu Gly Val Leu	Ile Thr His Gly Thr	90
80		85	
Leu Val Ile Thr Ala	Leu Asn Asn His Thr	Val Gly Arg Tyr Gln	105
95		100	
Cys Val Ala Arg Met	Pro Ala Gly Ala Val	Ala Ser Val Pro Ala	120
110		115	
Thr Val Thr Leu Ala	Asn Leu Gln Asp Phe	Lys Leu Asp Val Gln	135
125		130	
His Val Ile Glu Val	Asp Glu Gly Asn Thr	Ala Val Ile Ala Cys	150
140		145	
His Leu Pro Glu Ser	His Pro Lys Ala Gln	Val Arg Tyr Ser Val	165
155		160	
Lys Gln Glu Trp Leu	Glu Ala Ser Arg Gly	Asn Tyr Leu Ile Met	180
170		175	
Pro Ser Gly Asn Leu	Gln Ile Val Asn Ala	Ser Gln Glu Asp Glu	195
185		190	
Gly Met Tyr Lys Cys	Ala Ala Tyr Asn Pro	Val Thr Gln Glu Val	210
200		205	
Lys Thr Ser Gly Ser	Ser Ser Asp Arg Leu	Arg Val Arg Arg Ser	225
215		220	
Ala Glu Ala Ala Arg	Ile Ile Tyr Pro Pro	Glu Ala Gln Thr Ile	240
230		235	
Ile Val Thr Lys Gly	Gln Ser Leu Ile Leu	Glu Cys Val Ala Ser	255
245		250	
Gly Ile Pro Pro Pro	Arg Val Thr Trp Ala	Lys Asp Gly Ser Ser	270
260		265	
Val Thr Gly Tyr Asn	Lys Thr Arg Phe Leu	Leu Ser Asn Leu Leu	285
275		280	
Ile Asp Thr Thr Ser	Glu Glu Asp Ser Gly	Thr Tyr Arg Cys Met	300
290		295	
Ala Asp Asn Gly Val	Gly Gln Pro Gly Ala	Ala Val Ile Leu Tyr	315
305		310	
Asn Val Gln Val Phe	Glu Pro Pro Glu Val	Thr Met Glu Leu Ser	

	320	325	330
Gln Leu Val Ile	Pro Trp Gly Gln Ser	Ala Lys Leu Thr Cys	Glu
	335	340	345
Val Arg Gly Asn	Pro Pro Pro Ser Val	Leu Trp Leu Arg Asn	Ala
	350	355	360
Val Pro Leu Ile	Ser Ser Gln Arg Leu	Arg Leu Ser Arg Arg	Ala
	365	370	375
Leu Arg Val Leu	Ser Met Gly Pro Glu	Asp Glu Gly Val Tyr	Gln
	380	385	390
Cys Met Ala Glu	Asn Glu Val Gly Ser	Ala His Ala Val Val	Gln
	395	400	405
Leu Arg Thr Ser	Arg Pro Ser Ile Thr	Pro Arg Leu Trp Gln	Asp
	410	415	420
Ala Glu Leu Ala	Thr Gly Thr Pro Pro	Val Ser Pro Ser Lys	Leu
	425	430	435
Gly Asn Pro Glu	Gln Met Leu Arg Gly	Gln Pro Ala Leu Pro	Arg
	440	445	450
Pro Pro Thr Ser	Val Gly Pro Ala Ser	Pro Lys Cys Pro Gly	Glu
	455	460	465
Lys Gly Gln Gly	Ala Pro Ala Glu Ala	Pro Ile Ile Leu Ser	Ser
	470	475	480
Pro Arg Thr Ser	Lys Thr Asp Ser Tyr	Glu Leu Val Trp Arg	Pro
	485	490	495
Arg His Glu Gly	Ser Gly Arg Ala Pro	Ile Leu Tyr Tyr Val	Val
	500	505	510
Lys His Arg Lys	Gln Val Thr Asn Ser	Ser Asp Asp Trp Thr	Ile
	515	520	525
Ser Gly Ile Pro	Ala Asn Gln His Arg	Glu Thr Leu Thr Arg	Leu
	530	535	540
Asp Pro Gly Ser	Leu Tyr Glu Val Glu	Met Ala Ala Tyr Asn	Cys
	545	550	555
Ala Gly Glu Gly	Gln Thr Ala Met Val	Thr Phe Arg Thr Gly	Arg
	560	565	570
Arg Pro Lys Pro	Glu Ile Met Ala Ser	Lys Glu Gln Gln Ile	Gln
	575	580	585
Arg Asp Asp Pro	Gly Ala Ser Pro Gln	Ser Ser Ser Gln Pro	Asp
	590	595	600
His Gly Arg Leu	Ser Pro Pro Glu Ala	Pro Asp Arg Pro Thr	Ile
	605	610	615
Ser Thr Ala Ser	Glu Thr Ser Val Tyr	Val Thr Trp Ile Pro	Arg
	620	625	630
Gly Asn Gly Gly	Phe Pro Ile Gln Ser	Phe Arg Val Glu Tyr	Lys

	635	640	645
Lys Leu Lys Lys	Val Gly Asp Trp Ile	Leu Ala Thr Ser Ala	Ile
	650	655	660
Pro Pro Ser Arg	Leu Ser Val Glu Ile	Thr Gly Leu Glu Lys	Gly
	665	670	675
Thr Ser Tyr Lys	Phe Arg Val Arg Ala	Leu Asn Met Leu Gly	Glu
	680	685	690
Ser Glu Pro Ser	Ala Pro Ser Arg Pro	Val Val Ser Gly Tyr	
	695	700	705
Ser Gly Arg Val	Tyr Glu Arg Pro Val	Ala Gly Pro Tyr Ile	Thr
	710	715	720
Phe Thr Asp Ala	Val Asn Glu Thr Thr	Ile Met Leu Lys Trp	Met
	725	730	735
Tyr Ile Pro Ala	Ser Asn Asn Asn Thr	Pro Ile His Gly Phe	Tyr
	740	745	750
Ile Tyr Tyr Arg	Pro Thr Asp Ser Asp	Asn Asp Ser Asp Tyr	Lys
	755	760	765
Lys Asp Met Val	Glu Gly Asp Lys Tyr	Trp His Ser Ile Ser	His
	770	775	780
Leu Gln Pro Glu	Thr Ser Tyr Asp Ile	Lys Met Gln Cys Phe	Asn
	785	790	795
Glu Gly Gly Glu	Ser Glu Phe Ser Asn	Val Met Ile Cys Glu	Thr
	800	805	810
Lys Ala Arg Lys	Ser Ser Gly Gln Pro	Gly Arg Leu Pro Pro	Pro
	815	820	825
Thr Leu Ala Pro	Pro Gln Pro Pro Leu	Pro Glu Thr Ile Glu	Arg
	830	835	840
Pro Val Gly Thr	Gly Ala Met Val Ala	Arg Ser Ser Asp Leu	Pro
	845	850	855
Tyr Leu Ile Val	Gly Val Val Leu Gly	Ser Ile Val Leu Ile	Ile
	860	865	870
Val Thr Phe Ile	Pro Phe Cys Leu Trp	Arg Ala Trp Ser Lys	Gln
	875	880	885
Lys His Thr Thr	Asp Leu Gly Phe Pro	Arg Ser Ala Leu Pro	Pro
	890	895	900
Ser Cys Pro Tyr	Thr Met Val Pro Leu	Gly Gly Leu Pro Gly	His
	905	910	915
Gln Ala Ser Gly	Gln Pro Tyr Leu Ser	Gly Ile Ser Gly Arg	Ala
	920	925	930
Cys Ala Asn Gly	Ile His Met Asn Arg	Gly Cys Pro Ser Ala	Ala
	935	940	945
Val Gly Tyr Pro	Gly Met Lys Pro Gln	Gln His Cys Pro Gly	Glu

950	955	960
Leu Gln Gln Gln Ser Asp Thr Ser Ser Leu Leu Arg Gln Thr His		
965	970	975
Leu Gly Asn Gly Tyr Asp Pro Gln Ser His Gln Ile Thr Arg Gly		
980	985	990
Pro Lys Ser Ser Pro Asp Glu Gly Ser Phe Leu Tyr Thr Leu Pro		
995	1000	1005
Asp Asp Ser Thr His Gln Leu Leu Gln Pro His His Asp Cys Cys		
1010	1015	1020
Gln Arg Gln Glu Gln Pro Ala Ala Val Gly Gln Ser Gly Val Arg		
1025	1030	1035
Arg Ala Pro Asp Ser Pro Val Leu Glu Ala Val Trp Asp Pro Pro		
1040	1045	1050
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Glu Val Asp Ser Pro Asp Ser Cys Gln Val Ser Gly Gly Asp Trp		
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Cys Pro Gln His Pro Val Gly Ala Tyr Val Gly Gln Glu Pro Gly		
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<212> DNA

<213> Homosapiens

<400> 159

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 35 40 45
 Glu Gly Arg Leu Leu Tyr Cys Glu Ala Leu Asn Leu Thr Glu Ala
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 Pro His Asn Leu Ser Gly Leu Leu Gly Leu Ser Leu Arg Tyr Asn
 65 70 75
 Ser Leu Ser Glu Leu Arg Ala Gly Gln Phe Thr Gly Leu Met Gln
 80 85 90
 Leu Thr Trp Leu Tyr Leu Asp His Asn His Ile Cys Ser Val Gln
 95 100 105
 Gly Asp Ala Phe Gln Lys Leu Arg Arg Val Lys Glu Leu Thr Leu
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 Ser Ser Asn Gln Ile Thr Gln Leu Pro Asn Thr Thr Phe Arg Pro
 125 130 135
 Met Pro Asn Leu Arg Ser Val Asp Leu Ser Tyr Asn Lys Leu Gln
 140 145 150
 Ala Leu Ala Pro Asp Leu Phe His Gly Leu Arg Lys Leu Thr Thr
 155 160 165
 Leu His Met Arg Ala Asn Ala Ile Gln Phe Val Pro Val Arg Ile
 170 175 180
 Phe Gln Asp Cys Arg Ser Leu Lys Phe Leu Asp Ile Gly Tyr Asn
 185 190 195
 Gln Leu Lys Ser Leu Ala Arg Asn Ser Phe Ala Gly Leu Phe Lys
 200 205 210

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Phe Ala His Phe	230	Pro Arg Leu Ile	Ser 235	Leu His Ser	Leu Cys	Leu 240	
Arg Arg Asn Lys	245	Val Ala Ile Val	Val 250	Ser Ser Leu	Asp Trp	Val 255	
Trp Asn Leu Glu	260	Lys Met Asp Leu	Ser 265	Gly Asn Glu	Ile Glu	Tyr 270	
Met Glu Pro His	275	Val Phe Glu Thr	Val 280	Pro His Leu	Gln Ser	Leu 285	
Gln Leu Asp Ser	290	Asn Arg Leu Thr	Tyr 295	Ile Glu Pro	Arg Ile	Leu 300	
Asn Ser Trp Lys	305	Ser Leu Thr Ser	Ile 310	Thr Leu Ala	Gly Asn	Leu 315	
Trp Asp Cys Gly	320	Arg Asn Val Cys	Ala 325	Leu Ala Ser	Trp Leu	Ser 330	
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Glu Tyr Ala Gln	350	Gly Glu Asp Val	Leu 355	Ala Val Tyr	Ala Phe	360	
His Leu Cys Glu	365	Asp Gly Ala Glu	Pro 370	Thr Ser Gly	His Leu	Leu 375	
Ser Ala Val Thr	380	Asn Arg Ser Asp	Leu 385	Gly Pro Pro	Ala Ser	Ser 390	
Ala Thr Thr Leu	395	Ala Asp Gly Gly	Glu 400	Gly Gln His	Asp Gly	Thr 405	
Phe Glu Pro Ala	410	Thr Val Ala Leu	Pro 415	Gly Gly Glu	His Ala	Glu 420	
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Ile Phe Ser Phe	440	Leu Ile Val Val	Leu 445	Val Leu Tyr	Val Ser	Trp 450	
Lys Cys Phe Pro	455	Ala Ser Leu Arg	Gln 460	Leu Arg Gln	Cys Phe	Val 465	
Thr Gln Arg Arg	470	Lys Gln Lys Gln	Lys 475	Gln Thr Met	His Gln	Met 480	
Ala Ala Met Ser	485	Ala Gln Glu Tyr	Tyr 490	Val Asp Tyr	Lys Pro	Asn 495	
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 <212> PRT
 <213> Homosapiens

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 35 40 45
 Ser Ser Thr Lys Glu Thr Glu Arg Lys Glu Thr Lys Ala Glu Glu
 50 55 60
 Glu Leu Asp Ala Glu Val Leu Glu Val Phe His Pro Thr His Glu
 65 70 75
 Trp Gln Ala Leu Gln Pro Gly Gln Ala Val Pro Ala Gly Ser His
 80 85 90
 Val Arg Leu Asn Leu Gln Thr Gly Glu Arg Glu Ala Lys Leu Gln
 95 100 105
 Tyr Glu Asp Lys Phe Arg Asn Asn Leu Lys Gly Lys Arg Leu Asp
 110 115 120
 Ile Asn Thr Asn Thr Tyr Thr Ser Gln Asp Leu Lys Ser Ala Leu
 125 130 135
 Ala Lys Phe Lys Glu Gly Ala Glu Met Glu Ser Ser Lys Glu Asp
 140 145 150
 Lys Ala Arg Gln Ala Glu Val Lys Arg Leu Phe Arg Pro Ile Glu
 155 160 165
 Glu Leu Lys Lys Asp Phe Asp Glu Leu Asn Val Val Ile Glu Thr
 170 175 180
 Asp Met Gln Ile Met Val Arg Leu Ile Asn Lys Phe Asn Ser Ser
 185 190 195
 Ser Ser Ser Leu Glu Glu Lys Ile Ala Ala Leu Phe Asp Leu Glu
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 Tyr Tyr Val His Gln Met Asp Asn Ala Gln Asp Leu Leu Ser Phe
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 Gly Gly Leu Gln Val Val Ile Asn Gly Leu Asn Ser Thr Glu Pro
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Leu Val Lys Glu Tyr	Ala Ala Phe Val	Leu Gly Ala Ala Phe Ser	
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Ser Asn Pro Lys Val	Gln Val Glu Ala Ile	Glu Gly Gly Ala Leu	
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Gln Lys Leu Leu Val	Ile Leu Ala Thr Glu	Gln Pro Leu Thr Ala	
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Lys Lys Lys Val Leu	Phe Ala Leu Cys Ser	Leu Leu Arg His Phe	
290		295	300
Pro Tyr Ala Gln Arg	Gln Phe Leu Lys Leu	Gly Gly Leu Gln Val	
305		310	315
Leu Arg Thr Leu Val	Gln Glu Lys Gly Thr	Glu Val Leu Ala Val	
320		325	330
Arg Val Val Thr Leu	Leu Tyr Asp Leu Val	Thr Glu Lys Met Phe	
335		340	345
Ala Glu Glu Glu Ala	Glu Leu Thr Gln Glu	Met Ser Pro Glu Lys	
350		355	360
Leu Gln Gln Tyr Arg	Gln Val His Leu Leu	Pro Gly Leu Trp Glu	
365		370	375
Gln Gly Trp Cys Glu	Ile Thr Ala His Leu	Leu Ala Leu Pro Glu	
380		385	390
His Asp Ala Arg Glu	Lys Val Leu Gln Thr	Leu Gly Val Leu Leu	
395		400	405
Thr Thr Cys Arg Asp	Arg Tyr Arg Gln Asp	Pro Gln Leu Gly Arg	
410		415	420
Thr Leu Ala Ser Leu	Gln Ala Glu Tyr Gln	Val Leu Ala Ser Leu	
425		430	435
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<212> DNA

<213> Homosapiens

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 <211> 249
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 35 40 45
 Thr Val Asp Asn Thr Leu Lys Gly Ile Leu Glu Lys Leu Lys Val
 50 55 60
 Asp Leu Gly Val Leu Gln Lys Ser Ser Ala Trp Gln Leu Ala Lys
 65 70 75
 Gln Lys Ala Gln Glu Ala Glu Lys Leu Leu Asn Asn Val Ile Ser
 80 85 90
 Lys Leu Leu Pro Thr Asn Thr Asp Ile Phe Gly Leu Lys Ile Ser
 95 100 105
 Asn Ser Leu Ile Leu Asp Val Lys Ala Glu Pro Ile Asp Asp Gly
 110 115 120
 Lys Gly Leu Asn Leu Ser Phe Pro Val Thr Ala Asn Val Thr Val
 125 130 135

Ala Gly Pro Ile Ile Gly Gln Ile Ile Asn Leu Lys Ala Ser Leu
140 145 150
Asp Leu Leu Thr Ala Val Thr Ile Glu Thr Asp Pro Gln Thr His
155 160 165
Gln Pro Val Ala Val Leu Gly Glu Cys Ala Ser Asp Pro Thr Ser
170 175 180
Ile Ser Leu Ser Leu Leu Asp Lys His Ser Gln Ile Ile Asn Lys
185 190 195
Phe Val Asn Ser Val Ile Asn Thr Leu Lys Ser Thr Val Ser Ser
200 205 210
Leu Leu Gln Lys Glu Ile Cys Pro Leu Ile Arg Ile Phe Ile His
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His Lys Thr Gln Leu Gln Thr Leu Ile
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<210> 165

<211> 1841

<212> DNA

<213> Homosapiens

<400> 165

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 <212> PRT
 <213> Homosapiens

<400> 166
 Met Gln Ala Lys Tyr Ser Ser Thr Arg Asp Met Leu Asp Asp Asp
 1 5 10 15
 Gly Asp Thr Thr Met Ser Leu His Ser Gln Ala Ser Ala Thr Thr
 20 25 30
 Arg His Pro Glu Pro Arg Arg Thr Glu His Arg Ala Pro Ser Ser
 35 40 45
 Thr Trp Arg Pro Val Ala Leu Thr Leu Leu Thr Leu Cys Leu Val
 50 55 60
 Leu Leu Ile Gly Leu Ala Ala Leu Gly Leu Leu Phe Phe Gln Tyr
 65 70 75
 Tyr Gln Leu Ser Asn Thr Gly Gln Asp Thr Ile Ser Gln Met Glu
 80 85 90

Glu Arg Leu Gly Asn Thr Ser Gln Glu	Leu Gln Ser Leu Gln Val
95	100
Gln Asn Ile Lys Leu Ala Gly Ser Leu	Gln His Val Ala Glu Lys
110	115
Leu Cys Arg Glu Leu Tyr Asn Lys Ala	Gly Ala His Arg Cys Ser
125	130
Pro Cys Thr Glu Gln Trp Lys Trp His	Gly Asp Asn Cys Tyr Gln
140	145
Phe Tyr Lys Asp Ser Lys Ser Trp Glu	Asp Cys Lys Tyr Phe Cys
155	160
Leu Ser Glu Asn Ser Thr Met Leu Lys	Ile Asn Lys Gln Glu Asp
170	175
Leu Glu Phe Ala Ala Ser Gln Ser Tyr	Ser Glu Phe Phe Tyr Ser
185	190
Tyr Trp Thr Gly Leu Leu Arg Pro Asp	Ser Gly Lys Ala Trp Leu
200	205
Trp Met Asp Gly Thr Pro Phe Thr Ser	Glu Leu Phe His Ile Ile
215	220
Ile Asp Val Thr Ser Pro Arg Ser Arg	Asp Cys Val Ala Ile Leu
230	235
Asn Gly Met Ile Phe Ser Lys Asp Cys	Lys Glu Leu Lys Arg Cys
245	250
Val Cys Glu Arg Arg Ala Gly Met Val	Lys Pro Glu Ser Leu His
260	265
Val Pro Pro Glu Thr Leu Gly Glu Gly	Asp
275	280

<210> 167

<211> 1238

<212> DNA

<213> Homosapiens

<400> 167

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tcagcctggc ctctctgtca ctgctgccat ctggacatcc tcagccggct 150
ggcgatgacg cctgctctgt gcagatccct gtccctggcc tcaaggaggga 200
tgcgggagag aaggagagaca aaggcgcccc cggaaggcct ggaagagtcg 250
gccccacggg agaaaaagga gacatggggg acaagggaca gaaaggcagt 300
gtgggtcgtc atggaaaaat tgggtccatt ggctctaaag gtgagaaagg 350
agattccggt gacataggac ccctggtgcc taatggagaa ccaggcctcc 400
catgtgagtg cagccagctg cgcaaggcca tcggggagat ggacaaccag 450

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gtctctcagc tgaccagcga gctcaagttc atcaagaatg ctgtcgccgg 500
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 ccattggggg ccccatatgt ccttcgaggg ttggcaggga cagagcccag 950
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 tgagttagagg gctgttgtct aaactgagaa aatggcctat gcttaaggagg 1050
 aaaatgaaa tgttcctggg gtgctgtctc tgaagaagca gagtttcatt 1100
 acctgtattg tagccccaat gtcattatgt aattattacc cagaattgct 1150
 cttccataaa gcttgtgcct ttgtccaagc tatacataaa aatctttaag 1200
 tagtgcagta gttaagtcca aaaaaaaaa aaaaaaaaa 1238

<210> 168

<211> 271

<212> PRT

<213> Homosapiens

<400> 168

Met	Arg	Gly	Asn	Leu	Ala	Leu	Val	Gly	Val	Leu	Ile	Ser	Leu	Ala
1				5					10					15
Phe	Leu	Ser	Leu	Leu	Pro	Ser	Gly	His	Pro	Gln	Pro	Ala	Gly	Asp
				20					25					30
Asp	Ala	Cys	Ser	Val	Gln	Ile	Leu	Val	Pro	Gly	Leu	Lys	Gly	Asp
				35					40					45
Ala	Gly	Glu	Lys	Gly	Asp	Lys	Gly	Ala	Pro	Gly	Arg	Pro	Gly	Arg
				50					55					60
Val	Gly	Pro	Thr	Gly	Glu	Lys	Gly	Asp	Met	Gly	Asp	Lys	Gly	Gln
				65					70					75
Lys	Gly	Ser	Val	Gly	Arg	His	Gly	Lys	Ile	Gly	Pro	Ile	Gly	Ser
				80					85					90
Lys	Gly	Glu	Lys	Gly	Asp	Ser	Gly	Asp	Ile	Gly	Pro	Pro	Gly	Pro
				95					100					105
Asn	Gly	Glu	Pro	Gly	Leu	Pro	Cys	Glu	Cys	Ser	Gln	Leu	Arg	Lys
				110					115					120
Ala	Ile	Gly	Glu	Met	Asp	Asn	Gln	Val	Ser	Gln	Leu	Thr	Ser	Glu

	125		130		135
Leu Lys Phe Ile	Lys Asn Ala Val Ala	Gly Val Arg Glu Thr	Glu		
	140		145		150
Ser Lys Ile Tyr	Leu Leu Val Lys Glu	Lys Lys Arg Tyr Ala	Asp		
	155		160		165
Ala Gln Leu Ser	Cys Gln Gly Arg Gly	Gly Thr Leu Ser Met	Pro		
	170		175		180
Lys Asp Glu Ala	Ala Asn Gly Leu Met	Ala Ala Tyr Leu Ala	Gln		
	185		190		195
Ala Gly Leu Ala	Arg Val Phe Ile Gly	Ile Asn Asp Leu Glu	Lys		
	200		205		210
Glu Gly Ala Phe	Val Tyr Ser Asp His	Ser Pro Met Arg Thr	Phe		
	215		220		225
Asn Lys Trp Arg	Ser Gly Glu Pro Asn	Asn Ala Tyr Asp Glu	Glu		
	230		235		240
Asp Cys Val Glu	Met Val Ala Ser Gly	Gly Trp Asn Asp Val	Ala		
	245		250		255
Cys His Thr Thr	Met Tyr Phe Met Cys	Glu Phe Asp Lys Glu	Asn		
	260		265		270

Met

<210> 169
 <211> 972
 <212> DNA
 <213> Homosapiens

<400> 169
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 gttccttgat cctgccagac caccagccc ccggcacaga gctgctccac 150
 aggcaccatg aggatcatgc tgctattcac agccatcctg gccttcagcc 200
 tagctcagag ctttggggct gtctgtaagg agccacagga ggagggtggt 250
 cctggcgggg gccgcagcaa gagggatcca gatctctacc agctgctcca 300
 gagactcttc aaaagccact catctctgga gggattgctc aaagccctga 350
 gccaggctag cacagatcct aaggaatcaa catctcccga gaaacgtgac 400
 atgcatgact tctttgtggg acttatgggc aagaggagcg tccagccaga 450
 gggaaagaca ggacctttct taccttcagt gagggttctc cggcccttc 500
 atcccaatca gcttgatcc acaggaagt cttccctggg aacagaggag 550
 cagagacctt tataagactc tcctacggat gtgaatcaag agaacgtccc 600
 cagccttggc atcctcaagt atcccccgag agcagaatag gtactccact 650

tccggactcc tggactgcat taggaagacc tctttccctg tcccaatccc 700
 caggtgcgca cgctcctggt accctttctc ttcctgttc ttgtaacatt 750
 cttgtgcttt gactccttct ccattctttc tacctgaccc tgggtgtggaa 800
 actgcatagt gaatatcccc aaccccaatg ggcattgact gtagaatacc 850
 ctagagtccc tgtagtgtcc tacattaaaa atataatgtc tctctctatt 900
 cctcaacaat aaaggatttt tgcataatgaa aaaaaaaaaa aaaaaaaaaa 950
 aaaaaaaaaa aaaaaaaaaa aa 972

<210> 170
 <211> 135
 <212> PRT
 <213> Homosapiens

<400> 170
 Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu
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 Ala Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val
 20 25 30
 Val Pro Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln
 35 40 45
 Leu Leu Gln Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu
 50 55 60
 Leu Lys Ala Leu Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr
 65 70 75
 Ser Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met
 80 85 90
 Gly Lys Arg Ser Val Gln Pro Glu Gly Lys Thr Gly Pro Phe Leu
 95 100 105
 Pro Ser Val Arg Val Pro Arg Pro Leu His Pro Asn Gln Leu Gly
 110 115 120
 Ser Thr Gly Lys Ser Ser Leu Gly Thr Glu Glu Gln Arg Pro Leu
 125 130 135

<210> 171
 <211> 1415
 <212> DNA
 <213> Homosapiens

<400> 171
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 ccacgcgagt ctcaatcatg ctctctctag taactgtgtc tgactgtgct 150
 gtgatcacag gggcctgtga gcgggatgtc cagtgtgggg caggcacctg 200
 ctgtgccatc agcctgtggc ttcgaggggt gcggaatgtc accccgctgg 250

ggcggaagg cgaggagtgc caccocggca gccacaaggt cccttcttc 300
 aggaaacgca agcaccacac ctgtccttgc ttgccaacc tgctgtgtc 350
 caggttcccg gacggcaggt accgtgtctc catggacttg aagaacatca 400
 atttttaggc gcttgcttgg tctcaggata cccaccatcc ttttcttgag 450
 cacagcctgg atttttatatt ctgccatgaa acccagctcc catgactctc 500
 ccagtcctca cactgactac cctgatctct ctgtctagt acgcacatat 550
 gcacacaggc agacatacct cccatcatga catgggtccc aggtgtgcct 600
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 tggttaactc cttagtttca gaccacagac tcaagattgg ctcttcccag 950
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 aatcagcccc ctgaagactc tggtcaccgt cagcctgtgg ctgtgtgcct 1050
 gtgacctgtg accttctgcc agaattgtca tgcctctgag gccccctctt 1100
 accacacttt accagttaac cactgaagcc cccaattccc acagcttttc 1150
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 caccaactga aaaaa 1415

<210> 172
 <211> 105
 <212> PRT
 <213> Homosapiens

<400> 172

Met	Arg	Gly	Ala	Thr	Arg	Val	Ser	Ile	Met	Leu	Leu	Leu	Val	Thr
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Val	Ser	Asp	Cys	Ala	Val	Ile	Thr	Gly	Ala	Cys	Glu	Arg	Asp	Val
				20					25				30	
Gln	Cys	Gly	Ala	Gly	Thr	Cys	Cys	Ala	Ile	Ser	Leu	Trp	Leu	Arg
				35					40				45	

Gly	Leu	Arg	Met	Cys	Thr	Pro	Leu	Gly	Arg	Glu	Gly	Glu	Glu	Cys
				50					55					60
His	Pro	Gly	Ser	His	Lys	Val	Pro	Phe	Phe	Arg	Lys	Arg	Lys	His
				65					70					75
His	Thr	Cys	Pro	Cys	Leu	Pro	Asn	Leu	Leu	Cys	Ser	Arg	Phe	Pro
				80					85					90
Asp	Gly	Arg	Tyr	Arg	Cys	Ser	Met	Asp	Leu	Lys	Asn	Ile	Asn	Phe
				95					100					105

<210> 173

<211> 1281

<212> DNA

<213> Homosapiens

<400> 173

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acacagacgt gttctgtgcc aagcccaga aagcgccctt ggagtacctg 200
gaggatatag acctgaaaac actggagaag gaaccaagga ctttcaaaagc 250
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caggctgttt cctctgtcga gaggaagctg cggatctgtc ctccctgaaa 350
agcatgttgg accagctggg cgtccccctc tatgcagtgg taaaggagca 400
catcaggact gaagtgaagg atttcagccc ttatttcaaa ggagaaatct 450
tcctggatga aaagaaaaag ttctatggtc cacaaaggcg gaagatgatg 500
tttatgggat ttatccgtct gggagtgttg tacaacttct tccgagcctg 550
gaacggaggc ttctctggaa acctggaagg agaaggcttc atccttgggg 600
gagttttcgt ggtgggatca ggaagcagg gcattcttct tgagcaccga 650
gaaaaaagat ttggagacaa agtaaaccta ctttctgttc tgggaagctgc 700
taagatgatc aaaccacaga ctttgccctc agagaaaaaa tgattgtgtg 750
aaactgccca gctcagggat aaccagggac attcacctgt gttcatggga 800
tgtattgttt ccactcgtgt ccctaaggag tgagaaaccc atttatactc 850
tactctcagt atggattatt aatgtatttt aatattctgt ttaggcccac 900
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gaggattatt aagctaaaac ctgggaataa ggaggcttaa aattgactgc 1000
caggctgggt gcagtggctc acacctgtaa tcccagcact ttgggaggcc 1050
aaggtagaca agtcacttga ggtcgggagt tcgagaccag cctgagcaac 1100
atggcgaaac cccgtctcta ctaaaaatac aaaaatcacc cggtgtgtgt 1150

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<213> Homosapiens

<400> 175

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 tctctgctct cgtcccatc ctctcagcc tggtgccctc ccaggactgg 150
 aaggctgaac gcagccaaga ccccttcgag aaatgcacgc aggatcctga 200
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 agccccagag ggtgattgtg gttggcgctg gtgtggccgg gctggtggcc 300
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 taacaggatc gggggccgca tcttcacctc ccgggaccag aacacgggct 400
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 cacaagctct gccagggcct ggggctcaac ctgaccaagt tcaccacgta 500
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1844

<210> 176

<211> 567

<212> PRT

<213> Homosapiens

<400> 176

Met	Ala	Pro	Leu	Ala	Leu	His	Leu	Leu	Val	Leu	Val	Pro	Ile	Leu	1	5	10	15
Leu	Ser	Leu	Val	Ala	Ser	Gln	Asp	Trp	Lys	Ala	Glu	Arg	Ser	Gln	20	25	30	35
Asp	Pro	Phe	Glu	Lys	Cys	Met	Gln	Asp	Pro	Asp	Tyr	Glu	Gln	Leu	40	45	50	55
Leu	Lys	Val	Val	Thr	Trp	Gly	Leu	Asn	Arg	Thr	Leu	Lys	Pro	Gln	60	65	70	75
Arg	Val	Ile	Val	Val	Gly	Ala	Gly	Val	Ala	Gly	Leu	Val	Ala	Ala	80	85	90	95
Lys	Val	Leu	Ser	Asp	Ala	Gly	His	Lys	Val	Thr	Ile	Leu	Glu	Ala	100	105	110	115
Asp	Asn	Arg	Ile	Gly	Gly	Arg	Ile	Phe	Thr	Tyr	Arg	Asp	Gln	Asn	120	125	130	135
Thr	Gly	Trp	Ile	Gly	Glu	Leu	Gly	Ala	Met	Arg	Met	Pro	Ser	Ser	140	145	150	155
His	Arg	Ile	Leu	His	Lys	Leu	Cys	Gln	Gly	Leu	Gly	Leu	Asn	Leu	160	165	170	175
Thr	Lys	Phe	Thr	Gln	Tyr	Asp	Lys	Asn	Thr	Trp	Thr	Glu	Val	His	180	185	190	195
Glu	Val	Lys	Leu	Arg	Asn	Tyr	Val	Val	Glu	Lys	Val	Pro	Glu	Lys	200	205	210	215
Leu	Gly	Tyr	Ala	Leu	Arg	Pro	Gln	Glu	Lys	Gly	His	Ser	Pro	Glu	220	225	230	235
Asp	Ile	Tyr	Gln	Met	Ala	Leu	Asn	Gln	Ala	Leu	Lys	Asp	Leu	Lys	240	245	250	255
Ala	Leu	Gly	Cys	Arg	Lys	Ala	Met	Lys	Lys	Phe	Glu	Arg	His	Thr	260	265	270	275
Leu	Leu	Glu	Tyr	Leu	Leu	Gly	Glu	Gly	Asn	Leu	Ser	Arg	Pro	Ala	280	285	290	295

215				220				225						
Val	Gln	Leu	Leu	Gly	Asp	Val	Met	Ser	Glu	Asp	Gly	Phe	Phe	Tyr
				230					235					240
Leu	Ser	Phe	Ala	Glu	Ala	Leu	Arg	Ala	His	Ser	Cys	Leu	Ser	Asp
				245					250					255
Arg	Leu	Gln	Tyr	Ser	Arg	Ile	Val	Gly	Gly	Trp	Asp	Leu	Leu	Pro
				260					265					270
Arg	Ala	Leu	Leu	Ser	Ser	Leu	Ser	Gly	Leu	Val	Leu	Leu	Asn	Ala
				275					280					285
Pro	Val	Val	Ala	Met	Thr	Gln	Gly	Pro	His	Asp	Val	His	Val	Gln
				290					295					300
Ile	Glu	Thr	Ser	Pro	Pro	Ala	Arg	Asn	Leu	Lys	Val	Leu	Lys	Ala
				305					310					315
Asp	Val	Val	Leu	Leu	Thr	Ala	Ser	Gly	Pro	Ala	Val	Lys	Arg	Ile
				320					325					330
Thr	Phe	Ser	Pro	Pro	Leu	Pro	Arg	His	Met	Gln	Glu	Ala	Leu	Arg
				335					340					345
Arg	Leu	His	Tyr	Val	Pro	Ala	Thr	Lys	Val	Phe	Leu	Ser	Phe	Arg
				350					355					360
Arg	Pro	Phe	Trp	Arg	Glu	Glu	His	Ile	Glu	Gly	Gly	His	Ser	Asn
				365					370					375
Thr	Asp	Arg	Pro	Ser	Arg	Met	Ile	Phe	Tyr	Pro	Pro	Pro	Arg	Glu
				380					385					390
Gly	Ala	Leu	Leu	Leu	Ala	Ser	Tyr	Thr	Trp	Ser	Asp	Ala	Ala	Ala
				395					400					405
Ala	Phe	Ala	Gly	Leu	Ser	Arg	Glu	Glu	Ala	Leu	Arg	Leu	Ala	Leu
				410					415					420
Asp	Asp	Val	Ala	Ala	Leu	His	Gly	Pro	Val	Val	Arg	Gln	Leu	Trp
				425					430					435
Asp	Gly	Thr	Gly	Val	Val	Lys	Arg	Trp	Ala	Glu	Asp	Gln	His	Ser
				440					445					450
Gln	Gly	Gly	Phe	Val	Val	Gln	Pro	Pro	Ala	Leu	Trp	Gln	Thr	Glu
				455					460					465
Lys	Asp	Asp	Trp	Thr	Val	Pro	Tyr	Gly	Arg	Ile	Tyr	Phe	Ala	Gly
				470					475					480
Glu	His	Thr	Ala	Tyr	Pro	His	Gly	Trp	Val	Glu	Thr	Ala	Val	Lys
				485					490					495
Ser	Ala	Leu	Arg	Ala	Ala	Ile	Lys	Ile	Asn	Ser	Arg	Lys	Gly	Pro
				500					505					510
Ala	Ser	Asp	Thr	Ala	Ser	Pro	Glu	Gly	His	Ala	Ser	Asp	Met	Glu
				515					520					525
Gly	Gln	Gly	His	Val	His	Gly	Val	Ala	Ser	Ser	Pro	Ser	His	Asp

<210> 178
 <211> 330
 <212> PRT
 <213> Homosapiens

<400> 178

Met	Glu	Gly	Ala	Pro	Pro	Gly	Ser	Leu	Ala	Leu	Arg	Leu	Leu	Leu	1	5	10	15
Phe	Val	Ala	Leu	Pro	Ala	Ser	Gly	Trp	Leu	Thr	Thr	Gly	Ala	Pro	20	25	30	
Glu	Pro	Pro	Pro	Leu	Ser	Gly	Ala	Pro	Gln	Asp	Gly	Ile	Arg	Ile	35	40	45	
Asn	Val	Thr	Thr	Leu	Lys	Asp	Asp	Gly	Asp	Ile	Ser	Lys	Gln	Gln	50	55	60	
Val	Val	Leu	Asn	Ile	Thr	Tyr	Glu	Ser	Gly	Gln	Val	Tyr	Val	Asn	65	70	75	
Asp	Leu	Pro	Val	Asn	Ser	Gly	Val	Thr	Arg	Ile	Ser	Cys	Gln	Thr	80	85	90	
Leu	Ile	Val	Lys	Asn	Glu	Asn	Leu	Glu	Asn	Leu	Glu	Glu	Lys	Glu	95	100	105	
Tyr	Phe	Gly	Ile	Val	Ser	Val	Arg	Ile	Leu	Val	His	Glu	Trp	Pro	110	115	120	
Met	Thr	Ser	Gly	Ser	Ser	Leu	Gln	Leu	Ile	Val	Ile	Gln	Glu	Glu	125	130	135	
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Pro	Glu	Thr	Pro	Leu	Arg	Ala	Glu	Pro	Pro	Ser	Ser	Tyr	Lys	Val	230	235	240	
Met	Cys	Gln	Trp	Met	Glu	Lys	Phe	Arg	Lys	Asp	Leu	Cys	Arg	Phe	245	250	255	
Trp	Ser	Asn	Val	Phe	Pro	Val	Phe	Phe	Gln	Phe	Leu	Asn	Ile	Met	260	265	270	
Val	Val	Gly	Ile	Thr	Gly	Ala	Ala	Val	Val	Ile	Thr	Ile	Leu	Lys	275	280	285	

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Ile Gly Gly Phe	Asp Leu Asp Ile Lys Gly Trp Gly Gly Glu Asp				
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Cys Met Asp Glu	Leu Thr Pro Glu Gln Tyr Lys Met Cys Met Gln				
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Ser Lys Ala Met	Asn Glu Ala Ser His Gly Gln Leu Gly Met Leu				
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 Cys Cys Ala Ser Gly Asn Ile Asp Thr Ala Trp Ser Asn Leu Thr
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 Pro Gly Lys Ala Cys Arg Met Leu Gly Gly Arg Pro Arg Cys Glu
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 Leu Gln Met Pro Tyr Ile Ser Cys Ala Lys Leu Ser Lys Ile Trp
 65 70 75
 Phe Pro Ala Ser Lys Pro Cys Leu Leu Ala Phe Leu Glu Val Phe
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 cttcttctcc ttggcataca gctcacagct ctttggccta tagcagctgt 200
 ggaaatttat acctcccggtg tgctggaggc tgtaaatggg acagatgctc 250
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 gtgacctgga attttcgtcc tctagacggg ggacctgagc agtttgtatt 350
 ctactaccac atagatccct tccaacccat gagtggcggtg tttaaggacc 400
 ggggtgtctg ggatgggaat cctgagcggt acgatgcctc catccttctc 450
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 cccacctgat gttgatgggg tgatagggga gatccggtcc agcgtcgtgc 550
 acactgtacg cttctctgag atccacttcc tggctctggc cattggctct 600
 gcctgtgacg tgatgatcat aatagtaatt gtagtgggtc tcttccagca 650
 ttaccggaaa aagcgatggg ccgaaagagc tcataaagtg gtggagataa 700
 aatcaaaaga agaggaaagg ctcaaccaag agaaaaaggt cctctgttat 750
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 aaaggggata aaagccaatt tgtctgttac atttcttttc acgtatttct 1150
 tttagcagca cttctgttac taaagttaat gtgtttactc tctttccttc 1200
 ccacattctc aattaaaagg tgagctaagc ctctcggtg tttctgatta 1250
 acagtaaacc ctaaaattcaa actgtttaat gacattttta tttttatgtc 1300
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<210> 186
 <211> 215
 <212> PRT
 <213> Homosapiens

<400> 186
 Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly
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				20					25					30	
Thr	Ser	Arg	Val	Leu	Glu	Ala	Val	Asn	Gly	Thr	Asp	Ala	Arg	Leu	
				35					40					45	
Lys	Cys	Thr	Phe	Ser	Ser	Phe	Ala	Pro	Val	Gly	Asp	Ala	Leu	Thr	
				50					55					60	
Val	Thr	Trp	Asn	Phe	Arg	Pro	Leu	Asp	Gly	Gly	Pro	Glu	Gln	Phe	
				65					70					75	
Val	Phe	Tyr	Tyr	His	Ile	Asp	Pro	Phe	Gln	Pro	Met	Ser	Gly	Arg	
				80					85					90	
Phe	Lys	Asp	Arg	Val	Ser	Trp	Asp	Gly	Asn	Pro	Glu	Arg	Tyr	Asp	
				95					100					105	
Ala	Ser	Ile	Leu	Leu	Trp	Lys	Leu	Gln	Phe	Asp	Asp	Asn	Gly	Thr	
				110					115					120	
Tyr	Thr	Cys	Gln	Val	Lys	Asn	Pro	Pro	Asp	Val	Asp	Gly	Val	Ile	
				125					130					135	
Gly	Glu	Ile	Arg	Leu	Ser	Val	Val	His	Thr	Val	Arg	Phe	Ser	Glu	
				140					145					150	
Ile	His	Phe	Leu	Ala	Leu	Ala	Ile	Gly	Ser	Ala	Cys	Ala	Leu	Met	
				155					160					165	
Ile	Ile	Ile	Val	Ile	Val	Val	Val	Leu	Phe	Gln	His	Tyr	Arg	Lys	
				170					175					180	
Lys	Arg	Trp	Ala	Glu	Arg	Ala	His	Lys	Val	Val	Glu	Ile	Lys	Ser	
				185					190					195	
Lys	Glu	Glu	Glu	Arg	Leu	Asn	Gln	Glu	Lys	Lys	Val	Ser	Val	Tyr	
				200					205					210	
Leu	Glu	Asp	Thr	Asp											
				215											

<210> 187
 <211> 471
 <212> DNA
 <213> Homosapiens

<400> 187
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 atccgacaac agctgctcca gctgacacgt atccagctac tggctctgct 150
 gatgatgaag cccctgatgc tgaaccacct gctgctgcaa ccactgcgac 200
 cactgctgct cctaccactg caaccaccgc tgcttctacc actgctcgta 250
 aagacattcc agttttaccc aaatgggttg gggatctccc gaatggtaga 300
 gtgtgtccct gagatggaat cagcttgagt cttctgcaat tggtcacaac 350
 tattcatgct tctgtgatt tcatccaact acttaccttg cctacgatat 400

ccccctttatc tctaatacagt ttattttctt tcaaataaaa aataactatg 450
 agcaacataa aaaaaaaaaa a 471

<210> 188
 <211> 90
 <212> PRT
 <213> Homosapiens

<400> 188
 Met Lys Phe Leu Ala Val Leu Val Leu Leu Gly Val Ser Ile Phe
 1 5 10 15
 Leu Val Ser Ala Gln Asn Pro Thr Thr Ala Ala Pro Ala Asp Thr
 20 25 30
 Tyr Pro Ala Thr Gly Pro Ala Asp Asp Glu Ala Pro Asp Ala Glu
 35 40 45
 Thr Thr Ala Ala Thr Thr Thr Ala Thr Thr Ala Ala Pro Thr Thr
 50 55 60
 Ala Thr Thr Ala Ala Ser Thr Thr Ala Arg Lys Asp Ile Pro Val
 65 70 75
 Leu Pro Lys Trp Val Gly Asp Leu Pro Asn Gly Arg Val Cys Pro
 80 85 90

<210> 189
 <211> 2213
 <212> DNA
 <213> Homosapiens

<400> 189
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 aaagaaggag atggtgttat ctgaaaagggt tagtcagctg atggaatgga 150
 ctaacaaaaag acctgtaata agaataaatg gagacaagt cctgcgcctt 200
 gtgaaagccc caccgagaaa ttactccgtt atcgtcatgt tcaactgctct 250
 ccaactgcgt agacagtgtg tcgtttgcaa gcaagctgat gaagaattcc 300
 agatcctggc aaactcctgg cgataactcca gtgcattcac caacaggata 350
 ttttttgcca tgggtggattt tgatgaaggc tctgatgtat ttcagatgct 400
 aaacatgaat tcagctccaa ctttcatcaa ctttctgca aaagggaaac 450
 ccaaacgggg tgatacatat gagttacagg tgcgggggtt ttcagctgag 500
 cagattgccc ggtggatcgc cgacagaact gatgtcaata tttagatgat 550
 tagaccccca aattatgctg gtccccctat gttgggattg cttttggctg 600
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 aataaaactg gatgggcttt tgcagctttg tgttttggtc ttgctatgac 700
 atctggtcaa atgtggaacc atataagagg accaccatat gcccataaga 750

atccccacac gggacatgtg aattatatcc atggaagcag tcaagcccag 800
 tttgtagctg aaacacacat tgtctctctg tttaatggg gagttacctt 850
 aggaatggtg cttttatgtg aagctgctac ctctgacatg gatattggaa 900
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 agttggatgc tctctatttt tagatctaaa tatcatggct acccatacag 1000
 ctttctgatg agttaaaaag gtcccagaga tatatagaca ctggagtact 1050
 ggaaattgaa aaacgaaaat cgtgtgtgtt tgaaaagaag aatgcaactt 1100
 gtatattttg tattacctct tttttcaag tgatttaaat agttaatcat 1150
 ttaaccaaag aagatgtgta gtgccttaac aagcaatcct ctgtcaaaat 1200
 ctgagggtatt tgaaaataat taccctctta accttctctt cccagtgaac 1250
 tttatggaa acattaattta gtacaattaa gtatattata aaaattgtaa 1300
 aactactact ttgttttagt tagaacaagg ctcaaaacta ctttagttaa 1350
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 cctgaccagg tgttcccaca tatgcctgtt acagataact acattaggaa 1450
 ttcattctta gcttcttcat ctttgtgtgg atgtgtatac tttacgcatac 1500
 tttccttttg agtagagaaa ttatgtgtgt catgtggtct tctgaaaatg 1550
 gaacaccatt cttcagagca cagctctagc cctcagcaag acagttgttt 1600
 ctctctctcc ttgcataatt cctactgcgc tccagcctga gtgatagagt 1650
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 tccatctctt tagttttctt ttaagggtgac ccactctgtg taaaaatata 1800
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 aaattagagt ttgtcactta ttccatttgt acctaaagaga aaaataggct 1900
 cagtttagaaa aggactccct ggcaggcgcc agtgacttac gcctgtaatc 1950
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 aaaaaaaaaa aaa 2213

<210> 190
 <211> 335
 <212> PRT

<213> Homosapiens

<400> 190

Met	Ala	Ala	Arg	Trp	Arg	Phe	Trp	Cys	Val	Ser	Val	Thr	Met	Val
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Val	Ala	Leu	Leu	Ile	Val	Cys	Asp	Val	Pro	Ser	Ala	Ser	Ala	Gln
				20					25					30
Arg	Lys	Lys	Glu	Met	Val	Leu	Ser	Glu	Lys	Val	Ser	Gln	Leu	Met
				35					40					45
Glu	Trp	Thr	Asn	Lys	Arg	Pro	Val	Ile	Arg	Met	Asn	Gly	Asp	Lys
				50					55					60
Phe	Arg	Arg	Leu	Val	Lys	Ala	Pro	Pro	Arg	Asn	Tyr	Ser	Val	Ile
				65					70					75
Val	Met	Phe	Thr	Ala	Leu	Gln	Leu	His	Arg	Gln	Cys	Val	Val	Cys
				80					85					90
Lys	Gln	Ala	Asp	Glu	Glu	Phe	Gln	Ile	Leu	Ala	Asn	Ser	Trp	Arg
				95					100					105
Tyr	Ser	Ser	Ala	Phe	Thr	Asn	Arg	Ile	Phe	Phe	Ala	Met	Val	Asp
				110					115					120
Phe	Asp	Glu	Gly	Ser	Asp	Val	Phe	Gln	Met	Leu	Asn	Met	Asn	Ser
				125					130					135
Ala	Pro	Thr	Phe	Ile	Asn	Phe	Pro	Ala	Lys	Gly	Lys	Pro	Lys	Arg
				140					145					150
Gly	Asp	Thr	Tyr	Glu	Leu	Gln	Val	Arg	Gly	Phe	Ser	Ala	Glu	Gln
				155					160					165
Ile	Ala	Arg	Trp	Ile	Ala	Asp	Arg	Thr	Asp	Val	Asn	Ile	Arg	Val
				170					175					180
Ile	Arg	Pro	Pro	Asn	Tyr	Ala	Gly	Pro	Leu	Met	Leu	Gly	Leu	Leu
				185					190					195
Leu	Ala	Val	Ile	Gly	Gly	Leu	Val	Tyr	Leu	Arg	Arg	Ser	Asn	Met
				200					205					210
Glu	Phe	Leu	Phe	Asn	Lys	Thr	Gly	Trp	Ala	Phe	Ala	Ala	Leu	Cys
				215					220					225
Phe	Val	Leu	Ala	Met	Thr	Ser	Gly	Gln	Met	Trp	Asn	His	Ile	Arg
				230					235					240
Gly	Pro	Pro	Tyr	Ala	His	Lys	Asn	Pro	His	Thr	Gly	His	Val	Asn
				245					250					255
Tyr	Ile	His	Gly	Ser	Ser	Gln	Ala	Gln	Phe	Val	Ala	Glu	Thr	His
				260					265					270
Ile	Val	Leu	Leu	Phe	Asn	Gly	Gly	Val	Thr	Leu	Gly	Met	Val	Leu
				275					280					285
Leu	Cys	Glu	Ala	Ala	Thr	Ser	Asp	Met	Asp	Ile	Gly	Lys	Arg	Lys
				290					295					300

Ile Met Cys Val Ala Gly Ile Gly Leu Val Val Leu Phe Phe Ser
 305 310 315

Trp Met Leu Ser Ile Phe Arg Ser Lys Tyr His Gly Tyr Pro Tyr
 320 325 330

Ser Phe Leu Met Ser
 335

<210> 191
 <211> 1475
 <212> DNA
 <213> Homosapiens

<400> 191
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 gcttctactg agaggctctgc catggcctct cttggcctcc aacttgtagg 150
 ctacatccta ggcttcttg ggcttttggg cacactgggt gccatgctgc 200
 tccccagctg gaaaacaagt tcttatgtcg gtgccagcat tgtgacagca 250
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 ctggaatcat cctctgcttt tctgtctcat ccagagaaa tcgctccaac 700
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 gtgaaaaaca gtggacagca ccccaggagg cacaggtgag ggacactacc 900
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 gctccccctg cctaagtccc caacctcaa cttgaaaccc cattccctta 1100
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ccctctctct ggctgaggtt ggctcttagc tcattgctgg ggatgggaag 1250
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 cctccaaaga aactgattgg ccctggaacc tccatccac tcttggtatg 1350
 actccacagt gtccagacta atttgtgcat gaactgaaat aaaaccatcc 1400
 tacggtatcc agggaacaga aagcaggatg caggatggga ggacaggaag 1450
 gcagcctggg acatttaaaa aaata 1475

<210> 192

<211> 230

<212> PRT

<213> Homosapiens

<400> 192

Met	Ala	Ser	Leu	Gly	Leu	Gln	Leu	Val	Gly	Tyr	Ile	Leu	Gly	Leu	1	5	10	15
Leu	Gly	Leu	Leu	Gly	Thr	Leu	Val	Ala	Met	Leu	Leu	Pro	Ser	Trp	20	25	30	
Lys	Thr	Ser	Ser	Tyr	Val	Gly	Ala	Ser	Ile	Val	Thr	Ala	Val	Gly	35	40	45	
Phe	Ser	Lys	Gly	Leu	Trp	Met	Glu	Cys	Ala	Thr	His	Ser	Thr	Gly	50	55	60	
Ile	Thr	Gln	Cys	Asp	Ile	Tyr	Ser	Thr	Leu	Leu	Gly	Leu	Pro	Ala	65	70	75	
Asp	Ile	Gln	Ala	Ala	Gln	Ala	Met	Met	Val	Thr	Ser	Ser	Ala	Ile	80	85	90	
Ser	Ser	Leu	Ala	Cys	Ile	Ile	Ser	Val	Val	Gly	Met	Arg	Cys	Thr	95	100	105	
Val	Phe	Cys	Gln	Glu	Ser	Arg	Ala	Lys	Asp	Arg	Val	Ala	Val	Ala	110	115	120	
Gly	Gly	Val	Phe	Phe	Ile	Leu	Gly	Gly	Leu	Leu	Gly	Phe	Ile	Pro	125	130	135	
Val	Ala	Trp	Asn	Leu	His	Gly	Ile	Leu	Arg	Asp	Phe	Tyr	Ser	Pro	140	145	150	
Leu	Val	Pro	Asp	Ser	Met	Lys	Phe	Glu	Ile	Gly	Glu	Ala	Leu	Tyr	155	160	165	
Leu	Gly	Ile	Ile	Ser	Ser	Leu	Phe	Ser	Leu	Ile	Ala	Gly	Ile	Ile	170	175	180	
Leu	Cys	Phe	Ser	Cys	Ser	Ser	Gln	Arg	Asn	Arg	Ser	Asn	Tyr	Tyr	185	190	195	
Asp	Ala	Tyr	Gln	Ala	Gln	Pro	Leu	Ala	Thr	Arg	Ser	Ser	Pro	Arg	200	205	210	
Pro	Gly	Gln	Pro	Pro	Lys	Val	Lys	Ser	Glu	Phe	Asn	Ser	Tyr	Ser	215	220	225	

Leu Thr Gly Tyr Val
230

<210> 193
<211> 771
<212> DNA
<213> Homosapiens

<400> 193
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agtggcccc atgactcctt acctgatgct gtgccagcca cacaagagat 150
gtggggacaa gttctacgac cccctgcagc actgttgcta tgatgatgcc 200
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ctgctttgag cagtgtctcc cctggacctt catggtgaag ctgataaacc 300
agaactgcga ctacgcccgg acctcggatg acaggctttg tcgcagtgtc 350
agctaattga acatcagggg aacgatgact cctggattct ccttcctggg 400
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gctgtttggg ggccagagaa acacacactc aactgcccac ttcatctgt 500
gaactgtctg aggccacccc tgcagctgcc ctgaggaggc ccacagggtc 550
ccttctagaa ttctggacag catgagatgc gtgtgctgat gggggcccag 600
ggactctgaa cctcctgat gacccctatg gccaacatca acccggcacc 650
acccaaggc tggctgggga acccttcacc ctctgtgag attttccatc 700
atctcaagtt ctcttctatc caggagcaaa gcacaggatc ataataaatt 750
tatgtacttt ataaatgaaa a 771

<210> 194
<211> 110
<212> PRT
<213> Homosapiens

<400> 194
Met Ala Pro Arg Gly Cys Ile Val Ala Val Phe Ala Ile Phe Cys
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Ile Ser Arg Leu Leu Cys Ser His Gly Ala Pro Val Ala Pro Met
20 25 30
Thr Pro Tyr Leu Met Leu Cys Gln Pro His Lys Arg Cys Gly Asp
35 40 45
Lys Phe Tyr Asp Pro Leu Gln His Cys Cys Tyr Asp Asp Ala Val
50 55 60
Val Pro Leu Ala Arg Thr Gln Thr Cys Gly Asn Cys Thr Phe Arg
65 70 75
Val Cys Phe Glu Gln Cys Cys Pro Trp Thr Phe Met Val Lys Leu

80 85 90
 Ile Asn Gln Asn Cys Asp Ser Ala Arg Thr Ser Asp Asp Arg Leu
 95 100 105

Cys Arg Ser Val Ser
 110

<210> 195

<211> 728

<212> DNA

<213> Homosapiens

<400> 195

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 cagacactct caagaggatg gggagatgac atcacttggg tacaaactta 200
 tgaagaaggt ctcttttatg ctcaaaaaag taagaagcca ttaatgggta 250
 ttcatcacct ggaggattgt caatactctc aagcactaaa gaaagtattt 300
 gcccaaaatg aagaaataca agaaatggct cagaataagt tcatcatgct 350
 aaaccttatg catgaaacca ctgataagaa ttatcacct gatgggcaat 400
 atgtgcctag aatcatgttt gtagaccctt ctttaacagt tagagctgac 450
 atagctggaa gatactctaa cagattgtac acatatgagc ctctgggattt 500
 acccctattg atagaaaaca tgaagaaagc attaagactt attcagtcag 550
 agctataaga gatgatggaa aaaagccttc acttcaaaga agtcaaattt 600
 catgaagaaa acctctggca cattgacaaa tactaaatgt gcaagtatat 650
 agattttgtg atattactat ttagtttttt taatgtgttt gcaatagtct 700
 tattaataa aatgtttttt aaatctga 728

<210> 196

<211> 166

<212> PRT

<213> Homosapiens

<400> 196

Met Met Leu His Ser Ala Leu Gly Leu Cys Leu Leu Leu Val Thr
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 Val Ser Ser Asn Leu Ala Ile Ala Ile Lys Lys Glu Lys Arg Pro
 20 25 30
 Pro Gln Thr Leu Ser Arg Gly Trp Gly Asp Asp Ile Thr Trp Val
 35 40 45
 Gln Thr Tyr Glu Gly Leu Phe Tyr Ala Gln Lys Ser Lys Lys
 50 55 60
 Pro Leu Met Val Ile His His Leu Glu Asp Cys Gln Tyr Ser Gln

	65		70		75
Ala Leu Lys Lys Val Phe Ala Gln Asn Glu Glu Ile Gln Glu Met	80		85		90
Ala Gln Asn Lys Phe Ile Met Leu Asn Leu Met His Glu Thr Thr	95		100		105
Asp Lys Asn Leu Ser Pro Asp Gly Gln Tyr Val Pro Arg Ile Met	110		115		120
Phe Val Asp Pro Ser Leu Thr Val Arg Ala Asp Ile Ala Gly Arg	125		130		135
Tyr Ser Asn Arg Leu Tyr Thr Tyr Glu Pro Arg Asp Leu Pro Leu	140		145		150
Leu Ile Glu Asn Met Lys Lys Ala Leu Arg Leu Ile Gln Ser Glu	155		160		165

Leu

<210> 197
 <211> 2044
 <212> DNA
 <213> Homosapiens

<400> 197
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 ctccccgga ccagaagttc ctctgcgcgt ccgacggcga catgggcgtc 150
 cccacggccc tggaggccgg cagctggcgc tggggatccc tgetcttcgc 200
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 cgccgtattc cctgtatgtc tgtcccgagg ggcagaacgt caccctcacc 300
 tgcaggctct tgggccctgt ggacaaaggg cacgatgtga ccttctacaa 350
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 ggccatccg caacctcacg ttccaggacc ttacacctga ccatggaggc 450
 caccaggctg ccaacaccag ccacgacctg gtcagcgcc acgggttgga 500
 gtcggcctcc gaccaccatg gcaacttctc catcaccatg cgcaacctga 550
 ccctgctgga tagcggcctc tactgctgcc tgggtggtgga gatcaggcac 600
 caccactcgg agcacagggt ccatggtgcc atggagctgc aggtgcagac 650
 aggcaaatgat gcaccatcca actgtgtggt gtacctatcc tcctccagg 700
 atagtgaata catcacggct gcagccctgg ctacgggtgc ctgcatcgta 750
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 ggcagcctcc aaccgccgtg cccaggagct ggtgcggatg gacagaaca 850

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<210> 198

<211> 311

<212> PRT

<213> Homosapiens

<400> 198

Met	Gly	Val	Pro	Thr	Ala	Leu	Glu	Ala	Gly	Ser	Trp	Arg	Trp	Gly
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Ser	Leu	Leu	Phe	Ala	Leu	Phe	Leu	Ala	Ala	Ser	Leu	Gly	Pro	Val
				20					25					30
Ala	Ala	Phe	Lys	Val	Ala	Thr	Pro	Tyr	Ser	Leu	Tyr	Val	Cys	Pro
				35					40					45

Glu Gly Gln Asn Val Thr Leu Thr Cys Arg Leu Leu Gly Pro Val	50	55	60
Asp Lys Gly His Asp Val Thr Phe Tyr Lys Thr Trp Tyr Arg Ser	65	70	75
Ser Arg Gly Glu Val Gln Thr Cys Ser Glu Arg Arg Pro Ile Arg	80	85	90
Asn Leu Thr Phe Gln Asp Leu His Leu His Gly Gly His Gln	95	100	105
Ala Ala Asn Thr Ser His Asp Leu Ala Gln Arg His Gly Leu Glu	110	115	120
Ser Ala Ser Asp His His Gly Asn Phe Ser Ile Thr Met Arg Asn	125	130	135
Leu Thr Leu Leu Asp Ser Gly Leu Tyr Cys Cys Leu Val Val Glu	140	145	150
Ile Arg His His His Ser Glu His Arg Val His Gly Ala Met Glu	155	160	165
Leu Gln Val Gln Thr Gly Lys Asp Ala Pro Ser Asn Cys Val Val	170	175	180
Tyr Pro Ser Ser Ser Gln Asp Ser Glu Asn Ile Thr Ala Ala Ala	185	190	195
Leu Ala Thr Gly Ala Cys Ile Val Gly Ile Leu Cys Leu Pro Leu	200	205	210
Ile Leu Leu Leu Val Tyr Lys Gln Arg Gln Ala Ala Ser Asn Arg	215	220	225
Arg Ala Gln Glu Leu Val Arg Met Asp Ser Asn Ile Gln Gly Ile	230	235	240
Glu Asn Pro Gly Phe Glu Ala Ser Pro Pro Ala Gln Gly Ile Pro	245	250	255
Glu Ala Lys Val Arg His Pro Leu Ser Tyr Val Ala Gln Arg Gln	260	265	270
Pro Ser Glu Ser Gly Arg His Leu Leu Ser Glu Pro Ser Thr Pro	275	280	285
Leu Ser Pro Pro Gly Pro Gly Asp Val Phe Phe Pro Ser Leu Asp	290	295	300
Pro Val Pro Asp Ser Pro Asn Phe Glu Val Ile	305	310	

<210> 199
 <211> 693
 <212> DNA
 <213> Homosapiens

<400> 199
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 tgggctacgc gctcctcggt atcgtgaccc cgggagagcg gcggaagcag 200
 gaaatgctaa aggagatgcc actgcaggac ccaaggagca gggaggagcg 250
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 ccagcgagga gtccggaccg agataccatg ccaggactct ccgggggtcct 500
 gtgagctgcc gtccgggtgag cacgtttccc ccaaaccctg gactgactgc 550
 ttttaaggctc gcaaggcggg ccaggggccga gacgcgagtc ggatgtggtg 600
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 693

<210> 200

<211> 93

<212> PRT

<213> Homosapiens

<400> 200

Met	Asp	Ser	Leu	Arg	Lys	Met	Leu	Ile	Ser	Val	Ala	Met	Leu	Gly
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Ala	Gly	Ala	Gly	Val	Gly	Tyr	Ala	Leu	Leu	Val	Ile	Val	Thr	Pro
				20					25					30
Gly	Glu	Arg	Arg	Lys	Gln	Glu	Met	Leu	Lys	Glu	Met	Pro	Leu	Gln
				35					40					45
Asp	Pro	Arg	Ser	Arg	Glu	Glu	Ala	Ala	Arg	Thr	Gln	Gln	Leu	Leu
				50					55					60
Leu	Ala	Thr	Leu	Gln	Glu	Ala	Ala	Thr	Thr	Gln	Glu	Asn	Val	Ala
				65					70					75
Trp	Arg	Lys	Asn	Trp	Met	Val	Gly	Gly	Glu	Gly	Gly	Ala	Ser	Gly
				80					85					90

Arg Ser Pro

<210> 201

<211> 2052

<212> DNA

<213> Homosapiens

<400> 201

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 gttctcctct tctctctaat ccatacgtca cctctcctgt catccgttcc 150

catgccgtga ggtccattca cagaacacat ccatggctct catgctcagt 200
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 aggggccagt tctctagcgt ggtccacctc tacagggacg ggaaggacca 400
 gccatttatg cagatgccac agtatcaagg caggacaaaa ctggtgaagg 450
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 gaaggccatc tgggagctac aggtgtcagc actgggctca gttcctctca 600
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 tccatgcggc atgctcatct gagccgagag gtggaatcca ggttacagat 850
 aggagatacc ttttctgagc ctatctcgtg gcacctggct accaaagtac 900
 tgggaatact ctgctgtggc ctattttttg gcattgtttg actgaagatt 950
 ttcttctcca aattccagtg gaaaaaccag gcggaactgg actggagaag 1000
 aaagcacgga caggcagaat tgagagacgc ccggaacac gcagtggagg 1050
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 aaaactgtaa cccatagaaa agctccccag gagggtgcctc actctgagaa 1150
 gagatttaca aggaagagtg tggtggtctc tcagagtctc caagcaggga 1200
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 cgatcatggg tactgggtcc tcagactgaa tggagaacat ttgtatttca 1350
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 ccacctctca ggtgaagaac cgtcaggaat tcccatctca caggctgtgg 1950
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 aa 2052

<210> 202
 <211> 500
 <212> PRT
 <213> Homosapiens

<400> 202
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 20 25 30
 Leu Val Gly Glu Asp Ala Ala Phe Ser Cys Phe Leu Ser Pro Lys
 35 40 45
 Thr Asn Ala Glu Ala Met Glu Val Arg Phe Phe Arg Gly Gln Phe
 50 55 60
 Ser Ser Val Val His Leu Tyr Arg Asp Gly Lys Asp Gln Pro Phe
 65 70 75
 Met Gln Met Pro Gln Tyr Gln Gly Arg Thr Lys Leu Val Lys Asp
 80 85 90
 Ser Ile Ala Glu Gly Arg Ile Ser Leu Arg Leu Glu Asn Ile Thr
 95 100 105
 Val Leu Asp Ala Gly Leu Tyr Gly Cys Arg Ile Ser Ser Gln Ser
 110 115 120
 Tyr Tyr Gln Lys Ala Ile Trp Glu Leu Gln Val Ser Ala Leu Gly
 125 130 135
 Ser Val Pro Leu Ile Ser Ile Thr Gly Tyr Val Asp Arg Asp Ile
 140 145 150
 Gln Leu Leu Cys Gln Ser Ser Gly Trp Phe Pro Arg Pro Thr Ala
 155 160 165
 Lys Trp Lys Gly Pro Gln Gly Gln Asp Leu Ser Thr Asp Ser Arg
 170 175 180
 Thr Asn Arg Asp Met His Gly Leu Phe Asp Val Glu Ile Ser Leu
 185 190 195
 Thr Val Gln Glu Asn Ala Gly Ser Ile Ser Cys Ser Met Arg His
 200 205 210
 Ala His Leu Ser Arg Glu Val Glu Ser Arg Val Gln Ile Gly Asp

	215		220		225
Thr Phe Phe Glu	Pro 230	Ile Ser Trp His	Leu 235	Ala Thr Lys Val	Leu 240
Gly Ile Leu Cys	Cys 245	Gly Leu Phe Phe	Gly 250	Ile Val Gly Leu	Lys 255
Ile Phe Phe Ser	Lys 260	Phe Gln Trp Lys	Ile 265	Gln Ala Glu Leu	Asp 270
Trp Arg Arg Lys	His 275	Gly Gln Ala Glu	Leu 280	Arg Asp Ala Arg	Lys 285
His Ala Val Glu	Val 290	Thr Leu Asp Pro	Glu 295	Thr Ala His Pro	Lys 300
Leu Cys Val Ser	Asp 305	Leu Lys Thr Val	Thr 310	His Arg Lys Ala	Thr 315
Gln Glu Val Pro	His 320	Ser Glu Lys Arg	Phe 325	Thr Arg Lys Ser	Val 330
Val Ala Ser Gln	Ser 335	Phe Gln Ala Gly	Lys 340	His Tyr Trp Glu	Val 345
Asp Gly Gly His	Asn 350	Lys Arg Trp Arg	Val 355	Gly Val Cys Arg	Asp 360
Asp Val Asp Arg	Arg 365	Lys Glu Tyr Val	Thr 370	Leu Ser Pro Asp	His 375
Gly Tyr Trp Val	Leu 380	Arg Leu Asn Gly	Glu 385	His Leu Tyr Phe	Thr 390
Leu Asn Pro Arg	Phe 395	Ile Ser Val Phe	Pro 400	Arg Thr Pro Pro	Thr 405
Lys Ile Gly Val	Phe 410	Leu Asp Tyr Glu	Cys 415	Gly Thr Ile Ser	Phe 420
Phe Asn Ile Asn	Asp 425	Gln Ser Leu Ile	Tyr 430	Thr Leu Thr Cys	Arg 435
Phe Glu Gly Leu	Leu 440	Arg Pro Tyr Ile	Glu 445	Tyr Pro Ser Tyr	Asn 450
Glu Gln Asn Gly	Thr 455	Pro Ile Val Ile	Cys 460	Pro Val Thr Gln	Glu 465
Ser Glu Lys Glu	Ala 470	Ser Trp Gln Arg	Ala 475	Ser Ala Ile Pro	Glu 480
Thr Ser Asn Ser	Glu 485	Ser Ser Ser Gln	Ala 490	Thr Thr Pro Phe	Leu 495
Pro Arg Gly Glu	Met 500				

<210> 203
 <211> 689
 <212> DNA
 <213> Homosapiens

<400> 203

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 ctggacctg agcagcttct tgggccctgg tacgtgcttg cggtggcctc 150
 ccgggaaaag ggctttgcc tggagaagga catgaagaac gtcgtggggg 200
 tgggtggtgac cctactcca gaaaacaacc tgcggagcgt gtcctctcag 250
 cacgggctgg gaggggtgtg ccagagtgtc atggacctga taaagcgaaa 300
 ctccggatgg gtgtttgaga atccctcaat aggcgtgctg gagctctggg 350
 tgctggccac caacttcaga gactatgcc tcatcttcac tcagctggag 400
 ttccggggagc agcccttcaa caccgtggag ctgtacagtc tgacggagac 450
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 cacaagatcc ttctgtgagt gctgcgtccc cagtagggat ggcgccaca 600
 gggctctgtg acctcggcca gtgtccaccc acctcgctca gcggctcccc 650
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<210> 204

<211> 163

<212> PRT

<213> Homosapiens

<400> 204

Met	Gly	Gly	Leu	Leu	Leu	Ala	Ala	Phe	Leu	Ala	Leu	Val	Ser	Val
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Pro	Arg	Ala	Gln	Ala	Val	Trp	Leu	Gly	Arg	Leu	Asp	Pro	Glu	Gln
			20						25					30
Leu	Leu	Gly	Pro	Trp	Tyr	Val	Leu	Ala	Val	Ala	Ser	Arg	Glu	Lys
			35						40					45
Gly	Phe	Ala	Met	Glu	Lys	Asp	Met	Lys	Asn	Val	Val	Gly	Val	Val
			50						55					60
Val	Thr	Leu	Thr	Pro	Glu	Asn	Asn	Leu	Arg	Thr	Leu	Ser	Ser	Gln
			65						70					75
His	Gly	Leu	Gly	Gly	Cys	Asp	Gln	Ser	Val	Met	Asp	Leu	Ile	Lys
			80						85					90
Arg	Asn	Ser	Gly	Trp	Val	Phe	Glu	Asn	Pro	Ser	Ile	Gly	Val	Leu
			95						100					105
Glu	Leu	Trp	Val	Leu	Ala	Thr	Asn	Phe	Arg	Asp	Tyr	Ala	Ile	Ile
			110						115					120
Phe	Thr	Gln	Leu	Glu	Phe	Gly	Asp	Glu	Pro	Phe	Asn	Thr	Val	Glu
			125						130					135
Leu	Tyr	Ser	Leu	Thr	Glu	Thr	Ala	Ser	Gln	Glu	Ala	Met	Gly	Leu

140

145

150

Phe Thr Lys Trp Ser Arg Ser Leu Gly Phe Leu Ser Gln
 155 160

<210> 205

<211> 739

<212> DNA

<213> Homosapiens

<400> 205

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 cctggaggag gaggatatca cagggacctg gtacgtgaag gccatgggtg 150
 tcgataagga ctttcggag gacaggaggc ccaggaaggt gtccccagtg 200
 aaggtgacag ccctgggcgg tgggaagttg gaagccacgt tcaccttcac 250
 gaggaggagt cgggtcatcc agaagaaaat cctgatgcgg aagacggagg 300
 agcctggcaa atacagcgcc tatgggggca ggaagctcat gtacctgcag 350
 gagctgccca ggagggacca ctacatcttt tactgcaaag accagcacca 400
 tgggggcctg ctccacatgg gaaagcttgt gggtaggaat tctgatacca 450
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 acactaggca gccccgggt ctgcacctcc agagcccacc ctaccaccag 600
 acacagagcc cggaccacct ggacctaccc tccagccatg acccttccct 650
 gctcccaccc acctgactcc aaataaagtc cttttccccc aaaaaaaaaa 700
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 739

<210> 206

<211> 170

<212> PRT

<213> Homosapiens

<400> 206

Met Lys Thr Leu Phe Leu Gly Val Thr Leu Gly Leu Ala Ala Ala
 1 5 10 15
 Leu Ser Phe Thr Leu Glu Glu Glu Asp Ile Thr Gly Thr Trp Tyr
 20 25 30
 Val Lys Ala Met Val Val Asp Lys Asp Phe Pro Glu Asp Arg Arg
 35 40 45
 Pro Arg Lys Val Ser Pro Val Lys Val Thr Ala Leu Gly Gly Gly
 50 55 60
 Lys Leu Glu Ala Thr Phe Thr Phe Met Arg Glu Asp Arg Cys Ile
 65 70 75
 Gln Lys Lys Ile Leu Met Arg Lys Thr Glu Glu Pro Gly Lys Tyr

	80		85		90
Ser Ala Tyr Gly	Gly Arg Lys Leu Met	Tyr Leu Gln Glu Leu	Pro		
	95	100			
Arg Arg Asp His	Tyr Ile Phe Tyr Cys	Lys Asp Gln His His	Gly		
	110	115	120		
Gly Leu Leu His	Met Gly Lys Leu Val	Gly Arg Asn Ser Asp	Thr		
	125	130	135		
Asn Arg Glu Ala	Leu Glu Glu Phe Lys	Lys Leu Val Gln Arg	Lys		
	140	145	150		
Gly Leu Ser Glu	Glu Asp Ile Phe Thr	Pro Leu Gln Thr Gly	Ser		
	155	160	165		
Cys Val Pro Glu	His				
	170				

<210> 207
 <211> 1204
 <212> DNA
 <213> Homosapiens

<400> 207
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 aggccatgag gattctgcag ttaatcctgc ttgctctggc aacagggctt 150
 gtatgggggg agaccaggat catcaagggg ttcgagtgc agcctcactc 200
 ccagccctgg caggcagccc tgttcgagaa gacgcgggcta ctctgtgggg 250
 cgacgctcat cgcctccaga tggctcctga cagcagccca ctgcctcaag 300
 ccccgctaca tagttcacct ggggcagcac aacctccaga aggaggaggg 350
 ctgtgagcag acccgagacag ccaactgagtc cttccccac cccggttca 400
 acaacagcct ccccaacaaa gaccaccgca atgacatcat gctgggtgaag 450
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 ctcacgtgtg tgcactgctg gcaccagctg cctcatttcc ggtgggggca 550
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cctctacgaa cattcttttg gcctcctgga ctacaggaga tgctgtcact 1000
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 tgtatcccca gcccacaaaga cagctcctgg ccatatatca aggtttcaat 1150
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<210> 208
 <211> 250
 <212> PRT
 <213> Homosapiens

<400> 208
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 Val Gly Gly Glu Thr Arg Ile Ile Lys Gly Phe Glu Cys Lys Pro
 20 25 30
 His Ser Gln Pro Trp Gln Ala Ala Leu Phe Glu Lys Thr Arg Leu
 35 40 45
 Leu Cys Gly Ala Thr Leu Ile Ala Pro Arg Trp Leu Leu Thr Ala
 50 55 60
 Ala His Cys Leu Lys Pro Arg Tyr Ile Val His Leu Gly Gln His
 65 70 75
 Asn Leu Gln Lys Glu Glu Gly Cys Glu Gln Thr Arg Thr Ala Thr
 80 85 90
 Glu Ser Phe Pro His Pro Gly Phe Asn Asn Ser Leu Pro Asn Lys
 95 100 105
 Asp His Arg Asn Asp Ile Met Leu Val Lys Met Ala Ser Pro Val
 110 115 120
 Ser Ile Thr Trp Ala Val Arg Pro Leu Thr Leu Ser Ser Arg Cys
 125 130 135
 Val Thr Ala Gly Thr Ser Cys Leu Ile Ser Gly Trp Gly Ser Thr
 140 145 150
 Ser Ser Pro Gln Leu Arg Leu Pro His Thr Leu Arg Cys Ala Asn
 155 160 165
 Ile Thr Ile Ile Glu His Gln Lys Cys Glu Asn Ala Tyr Pro Gly
 170 175 180
 Asn Ile Thr Asp Thr Met Val Cys Ala Ser Val Gln Glu Gly Gly
 185 190 195
 Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Asn
 200 205 210
 Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln Asp Pro Cys Ala
 215 220 225

Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys Lys Tyr Val
 230 235 240

Asp Trp Ile Gln Glu Thr Met Lys Asn Asn
 245 250

<210> 209

<211> 1485

<212> DNA

<213> Homosapiens

<400> 209

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 gtttcttgtt gaccagaagt acagtgatga agagaacctt ccagaaaaagc 250
 tcacagcctt caaagagaag tacatggagt ttgacctgaa caatgaaggc 300
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 caagaccac ctggagatga agaagatgat ctcagagggt acaggagggg 400
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 <212> PRT
 <213> Homosapiens

<400> 210
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 Arg Glu Phe Leu Cys Asp Gln Lys Tyr Ser Asp Glu Glu Asn Leu
 35 40 45
 Pro Glu Lys Leu Thr Ala Phe Lys Glu Lys Tyr Met Glu Phe Asp
 50 55 60
 Leu Asn Asn Glu Gly Glu Ile Asp Leu Met Ser Leu Lys Arg Met
 65 70 75
 Met Glu Lys Leu Gly Val Pro Lys Thr His Leu Glu Met Lys Lys
 80 85 90
 Met Ile Ser Glu Val Thr Gly Gly Val Ser Asp Thr Ile Ser Tyr
 95 100 105
 Arg Asp Phe Val Asn Met Met Leu Gly Lys Arg Ser Ala Val Leu
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 Lys Leu Val Met Met Phe Glu Gly Lys Ala Asn Glu Ser Ser Pro
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 Lys Pro Val Gly Pro Pro Pro Glu Arg Asp Ile Ala Ser Leu Pro
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<210> 211
 <211> 636
 <212> DNA
 <213> Homosapiens

<400> 211
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 gtcaaacact ggccctcaga gcaggaccca gagaaggcct ggggcgcccc 200
 tgtgtgtggg cctccggaga aggacgacca gctgggtggtg ctgttcctctg 250
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 ccaaatacacc aggtgctcct gggaccggag gaagaccaag accacatcta 500
 ccacccccag tagggctcca ggggccatca ctgccccgcg cctgtcccaa 550
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 aataaacccc agcaggcaaa aaaaaaaaaa aaaaaa 636

<210> 212

<211> 151

<212> PRT

<213> Homosapiens

<400> 212

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Trp	Glu	Ala	Gly	Ala	Val	Pro	Ala	Pro	Lys	Val	Pro	Ile	Lys	Met	20	25	30	
Gln	Val	Lys	His	Trp	Pro	Ser	Glu	Gln	Asp	Pro	Glu	Lys	Ala	Trp	35	40	45	
Gly	Ala	Arg	Val	Val	Glu	Pro	Pro	Glu	Lys	Asp	Asp	Gln	Leu	Val	50	55	60	
Val	Leu	Phe	Pro	Val	Gln	Lys	Pro	Lys	Leu	Leu	Thr	Thr	Glu	Glu	65	70	75	
Lys	Pro	Arg	Gly	Gln	Gly	Arg	Gly	Pro	Ile	Leu	Pro	Gly	Thr	Lys	80	85	90	
Ala	Trp	Met	Glu	Thr	Glu	Asp	Thr	Leu	Gly	Arg	Val	Leu	Ser	Pro	95	100	105	
Glu	Pro	Asp	His	Asp	Ser	Leu	Tyr	His	Pro	Pro	Pro	Glu	Glu	Asp	110	115	120	
Gln	Gly	Glu	Glu	Arg	Pro	Arg	Leu	Trp	Val	Met	Pro	Asn	His	Gln	125	130	135	
Val	Leu	Leu	Gly	Pro	Glu	Glu	Asp	Gln	Asp	His	Ile	Tyr	His	Pro	140	145	150	

Gln

<210> 213

<211> 2014

<212> DNA

<213> Homosapiens

<400> 213

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 agaggacatg gaggcaggag aagttaacat ccctaataagg aggttctg 150



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 cagaataatt ggcatgcagt tggctgtggt ttcagaagag caagacccaa 250
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 ttcaccattc atgaataata ataaatatgt actgctggca tgtaagtctt 1850
 agttttcttg tatttacttc tttttttaaa tgtaaggacc aaacttctaa 1900
 actaattggt cttttgttgc ttttaatttt aaaaattaca ttcttctgat 1950
 gtaacatgtg atacatacaa aagaatatag ttttaatatgt attgaaataa 2000
 aacacaataa aatt 2014

<210> 214
 <211> 323
 <212> PRT
 <213> Homosapiens

<400> 214
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 Pro Asn Arg Arg Val Leu Val Thr Gly Ala Thr Gly Leu Leu Gly
 20 25 30
 Arg Ala Val His Lys Glu Phe Gln Gln Asn Asn Trp His Ala Val
 35 40 45
 Gly Cys Gly Phe Arg Arg Ala Arg Pro Lys Phe Glu Gln Val Asn
 50 55 60
 Leu Leu Asp Ser Asn Ala Val His His Ile Ile His Asp Phe Gln
 65 70 75
 Pro His Val Ile Val His Cys Ala Ala Glu Arg Arg Pro Asp Val
 80 85 90
 Val Glu Asn Gln Pro Asp Ala Ala Ser Gln Leu Asn Val Asp Ala
 95 100 105
 Ser Gly Asn Leu Ala Lys Glu Ala Ala Val Gly Ala Phe Leu
 110 115 120
 Ile Tyr Ile Ser Ser Asp Tyr Val Phe Asp Gly Thr Asn Pro Pro
 125 130 135
 Tyr Arg Glu Glu Asp Ile Pro Ala Pro Leu Asn Leu Tyr Gly Lys
 140 145 150
 Thr Lys Leu Asp Gly Glu Lys Ala Val Leu Glu Asn Asn Leu Gly
 155 160 165
 Ala Ala Val Leu Arg Ile Pro Ile Leu Tyr Gly Glu Val Glu Lys
 170 175 180
 Leu Glu Glu Ser Ala Val Thr Val Met Phe Asp Lys Val Gln Phe
 185 190 195
 Ser Asn Lys Ser Ala Asn Met Asp His Trp Gln Gln Arg Phe Pro
 200 205 210
 Thr His Val Lys Asp Val Ala Thr Val Cys Arg Gln Leu Ala Glu
 215 220 225

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<210> 216
 <211> 201
 <212> PRT
 <213> Homosapiens

<400> 216

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Leu	Val	Leu	Thr	Leu	Pro	Gly	Leu	Pro	Val	Trp	Ala	Gln	Asn	Asp
			20						25					30
Thr	Glu	Pro	Ile	Val	Leu	Glu	Gly	Lys	Cys	Leu	Val	Val	Cys	Asp
			35						40					45

Ser Asn Pro Ala Thr Asp Ser Lys Gly Ser Ser Ser Ser Pro Leu
 50 55 60
 Gly Ile Ser Val Arg Ala Ala Asn Ser Lys Val Ala Phe Ser Ala
 65 70 75
 Val Arg Ser Thr Asn His Glu Pro Ser Glu Met Ser Asn Lys Thr
 80 85 90
 Arg Ile Ile Tyr Phe Asp Gln Ile Leu Val Asn Val Gly Asn Phe
 95 100 105
 Phe Thr Leu Glu Ser Val Phe Val Ala Pro Arg Lys Gly Ile Tyr
 110 115 120
 Ser Phe Ser Phe His Val Ile Lys Val Tyr Gln Ser Gln Thr Ile
 125 130 135
 Gln Val Asn Leu Met Leu Asn Gly Lys Pro Val Ile Ser Ala Phe
 140 145 150
 Ala Gly Asp Lys Asp Val Thr Arg Glu Ala Ala Thr Asn Gly Val
 155 160 165
 Leu Leu Tyr Leu Asp Lys Glu Asp Lys Val Tyr Leu Lys Leu Glu
 170 175 180
 Lys Gly Asn Leu Val Gly Gly Trp Gln Tyr Ser Thr Phe Ser Gly
 185 190 195
 Phe Leu Val Phe Pro Leu
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<210> 217

<211> 3939

<212> DNA

<213> Homosapiens

<400> 217

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 tacaccttca accatactgt gaccggcaac aggacagagg gcgtgctgt 250
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<210> 218
 <211> 832
 <212> PRT
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<400> 218
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 20 25 30
 Lys Asp Ala Glu Phe Glu Arg Thr Tyr Val Asp Glu Val Asn Ser
 35 40 45
 Glu Leu Val Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn
 50 55 60
 Arg Thr Glu Gly Val Arg Val Ser Val Asn Val Leu Asn Lys Gln
 65 70 75
 Lys Gly Ala Pro Leu Leu Phe Val Val Arg Gln Lys Glu Ala Val
 80 85 90
 Val Ser Phe Gln Val Pro Leu Ile Leu Arg Gly Met Phe Gln Arg
 95 100 105
 Lys Tyr Leu Tyr Gln Lys Val Glu Arg Thr Leu Cys Gln Pro Pro
 110 115 120
 Thr Lys Asn Glu Ser Glu Ile Gln Phe Phe Tyr Val Asp Val Ser
 125 130 135
 Thr Leu Ser Pro Val Asn Thr Thr Tyr Gln Leu Arg Val Ser Arg
 140 145 150
 Met Asp Asp Phe Val Leu Arg Thr Gly Glu Gln Phe Ser Phe Asn
 155 160 165
 Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr Glu Phe Pro Glu
 170 175 180
 Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn Lys Ala Phe
 185 190 195
 Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro Val Tyr
 200 205 210
 Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr Met
 215 220 225
 Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
 230 235 240
 Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala
 245 250 255

Cys Gly Gly Ser	Leu	Pro	Phe	Tyr	Pro	Phe	Ala	Glu	Asp	Glu	Pro
	260					265					270
Val Asp Gln Gly	His	Arg	Gln	Lys	Thr	Leu	Ser	Val	Leu	Val	Ser
	275					280					285
Gln Ala Val Thr	Ser	Glu	Ala	Tyr	Val	Ser	Gly	Met	Leu	Phe	Cys
	290					295					300
Leu Gly Ile Phe	Leu	Ser	Phe	Tyr	Leu	Leu	Thr	Val	Leu	Leu	Ala
	305					310					315
Cys Trp Glu Asn	Trp	Arg	Gln	Lys	Lys	Lys	Thr	Leu	Leu	Val	Ala
	320					325					330
Ile Asp Arg Ala	Cys	Pro	Glu	Ser	Gly	His	Pro	Arg	Val	Leu	Ala
	335					340					345
Asp Ser Phe Pro	Gly	Ser	Ser	Pro	Tyr	Glu	Gly	Tyr	Asn	Tyr	Gly
	350					355					360
Ser Phe Glu Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu	Val	Asp	Ser
	365					370					375
Ala Gly Thr Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg	Ser	Phe
	380					385					390
Glu Pro Val Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser	Val
	395					400					405
Glu Glu Asp Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
	410					415					420
Asn Val Ile Arg	Thr	Lys	Gln	Tyr	Leu	Val	Val	Ala	Asp	Leu	Ala
	425					430					435
Arg Lys Asp Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe
	440					445					450
Trp Asn Ile Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val
	455					460					465
Gln Leu Val Ile	Thr	Tyr	Gln	Thr	Val	Val	Asn	Val	Thr	Gly	Asn
	470					475					480
Gln Asp Ile Cys	Tyr	Tyr	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly
	485					490					495
Asn Leu Ser Ala	Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile
	500					505					510
Leu Leu Gly Leu	Leu	Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile
	515					520					525
Asn His Asn Arg	Ala	Leu	Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu
	530					535					540
Cys Gly Ile Pro	Lys	His	Phe	Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr
	545					550					555
Ala Leu Met Met	Glu	Gly	Leu	Leu	Ser	Ala	Cys	Tyr	His	Val	Cys
	560					565					570

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Ile Ala Gly Leu	Cys Met Leu Lys Leu	Tyr Gln Lys Arg His Pro
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Asp Ile Asn Ala	Ser Ala Tyr Ser Ala	Tyr Ala Cys Leu Ala Ile
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Val Ile Phe Phe	Ser Val Leu Gly Val	Val Phe Gly Lys Gly Asn
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Thr Ala Phe Trp	Ile Val Phe Ser Ile	Ile His Ile Ile Ala Thr
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Leu Leu Leu Ser	Thr Gln Leu Tyr Tyr	Met Gly Arg Trp Lys Leu
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Asp Ser Gly Ile	Phe Arg Arg Ile Leu	His Val Leu Tyr Thr Asp
665		670 675
Cys Ile Arg Gln	Cys Ser Gly Pro Leu	Tyr Val Asp Arg Met Val
680		685 690
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Gly Leu Ile Met	Arg Pro Asn Asp Phe	Ala Ser Tyr Leu Leu Ala
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725		730 735
Met Lys Leu Arg	Ser Gly Glu Arg Ile	Lys Leu Ile Pro Leu Leu
740		745 750
Cys Ile Val Cys	Thr Ser Val Val Trp	Gly Phe Ala Leu Phe Phe
755		760 765
Phe Phe Gln Gly	Leu Ser Thr Trp Gln	Lys Thr Pro Ala Glu Ser
770		775 780
Arg Glu His Asn	Arg Asp Cys Ile Leu	Leu Asp Phe Phe Asp Asp
785		790 795
His Asp Ile Trp	His Phe Leu Ser Ser	Ile Ala Met Phe Gly Ser
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 35 40 45
 Gln Val Phe Pro Ser Leu Ser Leu Ile Pro Leu Thr Gln Met Leu
 50 55 60
 Thr Leu Gly Pro Asp Leu His Leu Leu Asn Pro Ala Ala Gly Met
 65 70 75
 Thr Pro Gly Thr Gln Thr His Pro Leu Thr Leu Gly Gly Leu Asn
 80 85 90

Val	Gln	Gln	Gln	Leu	His	Pro	His	Val	Leu	Pro	Ile	Phe	Val	Thr	
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Gln	Leu	Gly	Ala	Gln	Gly	Thr	Ile	Leu	Ser	Ser	Glu	Glu	Leu	Pro	
				110					115					120	
Gln	Ile	Phe	Thr	Ser	Leu	Ile	Ile	His	Ser	Leu	Phe	Pro	Gly	Gly	
				125					130					135	
Ile	Leu	Pro	Thr	Ser	Gln	Ala	Gly	Ala	Asn	Pro	Asp	Val	Gln	Asp	
				140					145					150	
Gly	Ser	Leu	Pro	Ala	Gly	Gly	Ala	Gly	Val	Asn	Pro	Ala	Thr	Gln	
				155					160					165	
Gly	Thr	Pro	Ala	Gly	Arg	Leu	Pro	Thr	Pro	Ser	Gly	Thr	Asp	Asp	
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Asp	Phe	Ala	Val	Thr	Thr	Pro	Ala	Gly	Ile	Gln	Arg	Ser	Thr	His	
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 Leu Arg Leu Thr Arg Ile Pro Ser Asn Leu Ser Ser Asp Thr Gln
 65 70 75
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 Leu Lys Asn Leu Leu Arg Leu His Leu Asn Ser Asn Lys Leu Lys
 170 175 180
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 185 190 195
 Leu Met Ile Gly Glu Asn Pro Val Ile Gly Ile Leu Asp Met Asn
 200 205 210
 Phe Lys Pro Leu Ala Asn Leu Arg Ser Leu Val Leu Ala Gly Met
 215 220 225
 Tyr Leu Thr Asp Ile Pro Gly Asn Ala Leu Val Gly Leu Asp Ser
 230 235 240

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Gln	Leu	Ala	Leu	Gln	Lys	Val	Pro	Asn	Leu	Lys	Phe	Leu	Asp	Leu
				260					265					270
Asn	Lys	Asn	Pro	Ile	His	Lys	Ile	Gln	Glu	Gly	Asp	Phe	Lys	Asn
				275					280					285
Met	Leu	Arg	Leu	Lys	Glu	Leu	Gly	Ile	Asn	Asn	Met	Gly	Glu	Leu
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Val	Ser	Val	Asp	Arg	Tyr	Ala	Leu	Asp	Asn	Leu	Pro	Glu	Leu	Thr
				305					310					315
Lys	Leu	Glu	Ala	Thr	Asn	Asn	Pro	Lys	Leu	Ser	Tyr	Ile	His	Arg
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Pro	Asn	Leu	Arg	Glu	Ile	Ser	Ile	His	Ser	Asn	Pro	Leu	Arg	Cys
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Asp	Cys	Val	Ile	His	Trp	Ile	Asn	Ser	Asn	Lys	Thr	Asn	Ile	Arg
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				395					400					405
Lys	Gly	His	Gln	Val	Lys	Glu	Val	Leu	Ile	Gln	Asp	Ser	Ser	Glu
				410					415					420
Gln	Cys	Leu	Pro	Met	Ile	Ser	His	Asp	Ser	Phe	Pro	Asn	Arg	Leu
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Asn	Val	Asp	Ile	Gly	Thr	Thr	Val	Phe	Leu	Asp	Cys	Arg	Ala	Met
				440					445					450
Ala	Glu	Pro	Glu	Pro	Glu	Ile	Tyr	Trp	Val	Thr	Pro	Ile	Gly	Asn
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Lys	Ile	Thr	Val	Glu	Thr	Leu	Ser	Asp	Lys	Tyr	Lys	Leu	Ser	Ser
				470					475					480
Glu	Gly	Thr	Leu	Glu	Ile	Ser	Asn	Ile	Gln	Ile	Glu	Asp	Ser	Gly
				485					490					495
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Val	Ala	Thr	Ile	Lys	Val	Asn	Gly	Thr	Leu	Leu	Asp	Gly	Thr	Gln
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Val	Leu	Lys	Ile	Tyr	Val	Lys	Gln	Thr	Glu	Ser	His	Ser	Ile	Leu
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Val	Ser	Trp	Lys	Val	Asn	Ser	Asn	Val	Met	Thr	Ser	Asn	Leu	Lys
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Trp	Ser	Ser	Ala	Thr	Met	Lys	Ile	Asp	Asn	Pro	His	Ile	Thr	Tyr	
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Thr	Ala	Arg	Val	Pro	Val	Asp	Val	His	Glu	Tyr	Asn	Leu	Thr	His	
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				635					640					645	
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				650					655					660	
Tyr	His	His	Ser	Leu	Lys	Lys	Tyr	Met	Gln	Lys	Thr	Ser	Ser	Ile	
				665					670					675	
Pro	Leu	Asn	Glu	Leu	Tyr	Pro	Pro	Leu	Ile	Asn	Leu	Trp	Glu	Gly	
				680					685					690	
Asp	Ser	Glu	Lys	Asp	Lys	Asp	Gly	Ser	Ala	Asp	Thr	Lys	Pro	Thr	
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 Ser Leu Asn Thr Asp Phe Ala Phe Arg Leu Tyr Arg Arg Leu Val
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Leu	Glu	Thr	Pro	Ser	Gln	Asn	Ile	Phe	Phe	Ser	Pro	Val	Ser	Val	65	70	75
Ser	Thr	Ser	Leu	Ala	Met	Leu	Ser	Leu	Gly	Ala	His	Ser	Val	Thr	80	85	90
Lys	Thr	Gln	Ile	Leu	Gln	Gly	Leu	Gly	Phe	Asn	Leu	Thr	His	Thr	95	100	105
Pro	Glu	Ser	Ala	Ile	His	Gln	Gly	Phe	Gln	His	Leu	Val	His	Ser	110	115	120
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Leu	Phe	Val	Lys	Lys	Glu	Leu	Gln	Leu	Gln	Ala	Asn	Phe	Leu	Gly	140	145	150
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Leu	Leu	Thr	Ala	Met	Val	Leu	Val	Asn	His	Ile	Phe	Phe	Lys	Ala	200	205	210
Lys	Trp	Glu	Lys	Pro	Phe	His	Leu	Glu	Tyr	Thr	Arg	Lys	Asn	Phe	215	220	225
Pro	Phe	Leu	Val	Gly	Glu	Gln	Val	Thr	Val	Gln	Val	Pro	Met	Met	230	235	240
His	Gln	Lys	Glu	Gln	Phe	Ala	Phe	Gly	Val	Asp	Thr	Glu	Leu	Asn	245	250	255
Cys	Phe	Val	Leu	Gln	Met	Asp	Tyr	Lys	Gly	Asp	Ala	Val	Ala	Phe	260	265	270
Phe	Val	Leu	Pro	Ser	Lys	Gly	Lys	Met	Arg	Gln	Leu	Glu	Gln	Ala	275	280	285
Leu	Ser	Ala	Arg	Thr	Leu	Ile	Lys	Trp	Ser	His	Ser	Leu	Gln	Lys	290	295	300
Arg	Trp	Ile	Glu	Val	Phe	Ile	Pro	Arg	Phe	Ser	Ile	Ser	Ala	Ser	305	310	315
Tyr	Asn	Leu	Glu	Thr	Ile	Leu	Pro	Lys	Met	Gly	Ile	Gln	Asn	Ala	320	325	330
Phe	Asp	Lys	Asn	Ala	Asp	Phe	Ser	Gly	Ile	Ala	Lys	Arg	Asp	Ser	335	340	345
Leu	Gln	Val	Ser	Lys	Ala	Thr	His	Lys	Ala	Val	Leu	Asp	Val	Ser	350	355	360
Glu	Glu	Gly	Thr	Glu	Ala	Thr	Ala	Ala	Thr	Thr	Thr	Lys	Phe	Ile	365	370	375

Val Arg Ser Lys Asp Gly Pro Ser Tyr Phe Thr Val Ser Phe Asn
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<212> DNA

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ccagcaagga ggccaaccag ctgctgaatg gcaaccatca aagcggatct 700
tccagccatc aaggaggggc cacaaccacg ccgttagcct ctggggcctc 750
agtcaacacg cctttcatca accttcccgc cctgtggagg agcgtgcgca 800
acatcatgcc cttaaactggc atccggcctt gctgggagaa taatgtcgcc 850
gttgtcacat cagctgacat gacctggagg ggttgggggt gggggacagg 900
tttctgaaat ccctgaaggg ggttgtactg ggatttgtga ataaacttga 950
tacacca 957

<210> 226

<211> 247

<212> PRT

<213> Homosapiens

<400> 226

Met His Leu Ala Arg Leu Val Gly Ser Cys Ser Leu Leu Leu Leu
1 5 10 15

Leu Gly Ala Leu Ser Gly Trp Ala Ala Ser Asp Asp Pro Ile Glu
 20 25 30
 Lys Val Ile Glu Gly Ile Asn Arg Gly Leu Ser Asn Ala Glu Arg
 35 40 45
 Glu Val Gly Lys Ala Leu Asp Gly Ile Asn Ser Gly Ile Thr His
 50 55 60
 Ala Gly Arg Glu Val Glu Lys Val Phe Asn Gly Leu Ser Asn Met
 65 70 75
 Gly Ser His Thr Gly Lys Glu Leu Asp Lys Gly Val Gln Gly Leu
 80 85 90
 Asn His Gly Met Asp Lys Val Ala His Glu Ile Asn His Gly Ile
 95 100 105
 Gly Gln Ala Gly Lys Glu Ala Glu Lys Leu Gly His Gly Val Asn
 110 115 120
 Asn Ala Ala Gly Gln Ala Gly Lys Glu Ala Asp Lys Ala Val Gln
 125 130 135
 Gly Phe His Thr Gly Val His Gln Ala Gly Lys Glu Ala Glu Lys
 140 145 150
 Leu Gly Gln Gly Val Asn His Ala Ala Asp Gln Ala Gly Lys Glu
 155 160 165
 Val Glu Lys Leu Gly Gln Gly Ala His His Ala Ala Gly Gln Ala
 170 175 180
 Gly Lys Glu Leu Gln Asn Ala His Asn Val Asn Gln Ala Ser
 185 190 195
 Lys Glu Ala Asn Gln Leu Leu Asn Gly Asn His Gln Ser Gly Ser
 200 205 210
 Ser Ser His Gln Gly Gly Ala Thr Thr Thr Pro Leu Ala Ser Gly
 215 220 225
 Ala Ser Val Asn Thr Pro Phe Ile Asn Leu Pro Ala Leu Trp Arg
 230 235 240
 Ser Val Ala Asn Ile Met Pro
 245

<210> 227
 <211> 904
 <212> DNA
 <213> Homosapiens

<400> 227
 gaagtagagg tgttgtgctg agcggcgctc ggcgaaactgt gtggaccgtc 50
 tgctgggact ccggccctgc gtcgctcag ccccgtagcc ccgcgcacct 100
 actgccatgg agacgcggcc tcgtctcggg gccacctgtt tgctgggctt 150
 cagtttctcg ctctctgtca tctcttctga tggacataat gggcttgga 200
 aggggttttg agatcatatt cattggagga cactggaaga tgggaagaaa 250

gaagcagctg ccagtggact gcccctgatg gtgattattc ataaatcctg 300
 gtgtggagct tgc aaagctc taaagccaa atttgcagaa tctacggaaa 350
 ttccagaact ctcccataat ttgtttatgg taaatcttga ggatgaagag 400
 gaacccaaag atgaagattt cagccctgac gggggttata ttccacgaat 450
 cctttttctg gatcccgatg gcaagggtgca tcttgaaatc atcaatgaga 500
 atgga aacc cagctacaag tatttttatg tcaagtgccg gcaagttgtt 550
 caggggatga aggaagctca ggaaggctg acgggtgatg ccttcagaaa 600
 gaaacatctt gaagatgaat tgtaacatga atgtgccctt tctttcatca 650
 gagttagtgt tctggaagga aagcagcagg gaagggaata ttgaggaatc 700
 atctagaaca attaagccga ccaggaaacc tcattcctac ctactctgga 750
 aggagcgcct tcaactgtgga agagttctgc taacagaagc tggctctgat 800
 gtttgtggat ccagcggaga gtggcagact ttcttctcct ttccctctc 850
 acctaaatgt caacttgta ttgaatgtaa agaatagaac cttctgacac 900
 aaaa 904

<210> 228
 <211> 172
 <212> PRT
 <213> Homosapiens

<400> 228
 Met Glu Thr Arg Pro Arg Leu Gly Ala Thr Cys Leu Leu Gly Phe
 1 5 10 15
 Ser Phe Leu Leu Leu Val Ile Ser Ser Asp Gly His Asn Gly Leu
 20 25 30
 Gly Lys Gly Phe Gly Asp His Ile His Trp Arg Thr Leu Glu Asp
 35 40 45
 Gly Lys Lys Glu Ala Ala Ala Ser Gly Leu Pro Leu Met Val Ile
 50 55 60
 Ile His Lys Ser Trp Cys Gly Ala Cys Lys Ala Leu Lys Pro Lys
 65 70 75
 Phe Ala Glu Ser Thr Glu Ile Ser Glu Leu Ser His Asn Phe Val
 80 85 90
 Met Val Asn Leu Glu Asp Glu Glu Glu Pro Lys Asp Glu Asp Phe
 95 100 105
 Ser Pro Asp Gly Gly Tyr Ile Pro Arg Ile Leu Phe Leu Asp Pro
 110 115 120
 Ser Gly Lys Val His Pro Glu Ile Ile Asn Glu Asn Gly Asn Pro
 125 130 135
 Ser Tyr Lys Tyr Phe Tyr Val Ser Ala Glu Gln Val Val Gln Gly
 140 145 150

Met Lys Glu Ala Gln Glu Arg Leu Thr Gly Asp Ala Phe Arg Lys
 155 160 165

Lys His Leu Glu Asp Glu Leu
 170

<210> 229

<211> 1942

<212> DNA

<213> Homosapiens

<400> 229

cccacgcgtc cgcccacgcg tccgggtgcc actcgcgcgc cgcccgcgct 50
 ccgggcttct tttttccctc cgacgcgccca cggtgcceca gacattccgg 100
 ctgccgggtc tggagagctc cccgaacccc tccgcggaga ggagcgaggc 150
 ggccgacagg tggcccccgg ggccgcgttg gtctcggaga agcggggacg 200
 aggcgggagg atgagcgact gagggcgacg cgggcactga cgcgagttgg 250
 ggccgcgact accggcgact gacagcgaga tgagcgactc ccagagacg 300
 ccctagcccg gtgtgcgcgc caggcgagag gcgcaggtgg ggctgggctg 350
 ttagtgtgtc gccccacgcg ggtcgccggc cgcccagga tggcgctgg 400
 caaccgggce ccgcgccgc cgctgctacc cctgcgcccg ctgcgagccc 450
 ggctgcggcg ccgcgccctg cgctcatgga cggcggtctc cggctggcgg 500
 cggcgcgcgc ccgggctgtg aatgcgactc gccctcggc cgcgctcccc 550
 gcccccccgc ccgccgggac gtggtagggg atgccagct ccaactcgat 600
 ggcagttggc gcgctctcca gtccctctc ggtcacctgc tgcctgatgg 650
 tggctctgtg cagtccgagc atcccgtgg agaagctggc ccaggcacca 700
 gagcagccgg gccaggagaa gcgtgagcac gccactcggg acggcccggg 750
 gcgggtgaac gagctcgggc gcccggcgag ggacgagggc ggacgcggcc 800
 gggactgaaa gagcaagagc ggcctggggc tcgccggccg tgagccgtgg 850
 agcaagctga agcaggcctg ggtctcccag ggcgggggag ccaaggcccg 900
 ggatctcgag gtccggcccc gcggggacac cccgcaggcg gaagccctgg 950
 ccgcagccgc ccaggacgcg attggcccgg aactcgcgcc cacgcccgag 1000
 ccaccgcagg agtacgtgta cccggactac cgtggcaagg gctgcgtgga 1050
 cgagagcggc ttcgtgtacg cgatcgggga gaagttcgcg ccgggcccct 1100
 cgccctgccg gtgcctgtgc accgaggagg ggccgctgtg cgcgcagccc 1150
 gagtgcgccg ggctgcaccc gcgctgcata cacgtcgaca cgagccagtg 1200
 ctgcccgagc tgcaaggaga ggaagaacta ctgcgagttc cggggcaaga 1250
 cctatcagac tttggaggag ttcgtggtgt ctccatgcga gaggtgtcgc 1300

tgtgaagcca acggtgaggt gctatgcaca gtgtcagcgt gtccccagac 1350
 ggagtgtgtg gacctgtgt acgagcctga tcagtgtgtg cccatctgca 1400
 aaaatgttcc aaactgcttt gcagaaaccg cggatgatccc tgctggcaga 1450
 gaagtgaaga ctgacgagtg caccatattg cactgtactt atgaggaagg 1500
 cacatggaga atcgagcggc aggccatgtg cagcagacat gaatgcaggc 1550
 aaatgtagac gcttcccaga acacaaactc tgactttttc tagaacattt 1600
 tactgatgtg aacattctag atgactctgg gaactatcag tcaagaaga 1650
 cttttgatga ggaataatgg aaaattgttg gtacttttcc ttttcttgat 1700
 aacagtctact acaacagaag gaaatggata tatttcaaaa catcaacaag 1750
 aactttgggc ataaaatcct tctctaaata aatgtgctat ttccacagta 1800
 agtacacaaa agtacactat tatatatcaa atgtatttct ataatccctc 1850
 cattagagag cttatataag tgttttctat agatgcagat taaaaatgct 1900
 gtgtgtgtcaa ccgtcaaaaa aaaaaaaaaa aaaaaaaaaa aa 1942

<210> 230
 <211> 325
 <212> PRT
 <213> Homosapiens

<400> 230
 Met Pro Ser Ser Thr Ala Met Ala Val Gly Ala Leu Ser Ser Ser
 1 5 10 15
 Leu Leu Val Thr Cys Cys Leu Met Val Ala Leu Cys Ser Pro Ser
 20 25 30
 Ile Pro Leu Glu Lys Leu Ala Gln Ala Pro Glu Gln Pro Gly Gln
 35 40 45
 Glu Lys Arg Glu His Ala Thr Arg Asp Gly Pro Gly Arg Val Asn
 50 55 60
 Glu Leu Gly Arg Pro Ala Arg Asp Glu Gly Gly Ser Gly Arg Asp
 65 70 75
 Trp Lys Ser Lys Ser Gly Arg Gly Leu Ala Gly Arg Glu Pro Trp
 80 85 90
 Ser Lys Leu Lys Gln Ala Trp Val Ser Gln Gly Gly Gly Ala Lys
 95 100 105
 Ala Gly Asp Leu Gln Val Arg Pro Arg Gly Asp Thr Pro Gln Ala
 110 115 120
 Glu Ala Leu Ala Ala Ala Ala Gln Asp Ala Ile Gly Pro Glu Leu
 125 130 135
 Ala Pro Thr Pro Glu Pro Pro Glu Glu Tyr Val Tyr Pro Asp Tyr
 140 145 150
 Arg Gly Lys Gly Cys Val Asp Glu Ser Gly Phe Val Tyr Ala Ile

	155		160		165
Gly Glu Lys Phe	Ala Pro Gly Pro Ser	Ala Cys Pro Cys Leu Cys			
	170	175			180
Thr Glu Glu Gly	Pro Leu Cys Ala Gln	Pro Glu Cys Pro Arg Leu			
	185	190			195
His Pro Arg Cys	Ile His Val Asp Thr	Ser Gln Cys Cys Pro Gln			
	200	205			210
Cys Lys Glu Arg	Lys Asn Tyr Cys Glu	Phe Arg Gly Lys Thr Tyr			
	215	220			225
Gln Thr Leu Glu	Glu Phe Val Val Ser	Pro Cys Glu Arg Cys Arg			
	230	235			240
Cys Glu Ala Asn	Gly Glu Val Leu Cys	Thr Val Ser Ala Cys Pro			
	245	250			255
Gln Thr Glu Cys	Val Asp Pro Val Tyr	Glu Pro Asp Gln Cys Cys			
	260	265			270
Pro Ile Cys Lys	Asn Gly Pro Asn Cys	Phe Ala Glu Thr Ala Val			
	275	280			285
Ile Pro Ala Gly	Arg Glu Val Lys Thr	Asp Glu Cys Thr Ile Cys			
	290	295			300
His Cys Thr Tyr	Glu Glu Gly Thr Trp	Arg Ile Glu Arg Gln Ala			
	305	310			315
Met Cys Thr Arg	His Glu Cys Arg Gln Met				
	320	325			

<210> 231
 <211> 1728
 <212> DNA
 <213> Homosapiens

<400> 231
 ggcgggacgc ctccgcgtta cgggatgaat taacggcggg ttccgcacgg 50
 aggttgtgac ccctacggag cccagcgttg cccacgcacc ccaactcggcg 100
 tcgcgcggcg tgccctgctt gtcacagggt ggaggctgga actatcaggc 150
 tgaaaaacag agtgggtact ctcttctggg aagctggcaa caaatggatg 200
 atgtgatata tgcatccag ggaagggaa attgtggtgc ttctgaaccc 250
 atgtgcaatt aacgaggcag tttctagcta ctgcacgtac ttcataaagc 300
 aggactctaa aagcttttga atcatgggtg catggaaagg gatttacttt 350
 atactgactc tgttttggg aagctttttt ggaagcattt tcatgtgag 400
 tcccttttta cttttgatgt ttgtaaacc atcttggtat cgctggatca 450
 acaaccgcct tgtggcaaca tggctcacc tacctgtggc attattggag 500
 accatgtttg gtgtaaaagt gattataact ggggatgcat ttgttccttg 550

agaaagaagt gtcattatca tgaaccatcg gacaagaatg gactggatgt 600
 tcctgtggaa ttgcctgatg cgatatagct acctcagatt ggagaaaaatt 650
 tgccctcaaag cgagtcctcaa aggtgttcct ggatttggtt ggcccatgca 700
 ggctgctgcc tatatcttca ttcattaggaa atggaaggat gacaagagcc 750
 atttcgaaga catgattgat tacttttggg atattcacga accacttcaa 800
 ctctcatat tcccagaagg gactgatctc acagaaaaca gcaagtcctg 850
 aagtaatgca ttgtctgaaa aaaatggact tcagaaatat gaatatgttt 900
 tacatccaag aactacaggc ttacttttg tggtagaccg tctaagagaa 950
 ggtaagaacc ttgatgctgt ccatgatatc actgtggcgt atcctcaca 1000
 cattctcaa tcagagaagc acctctcca aggagacttt ccaggggaaa 1050
 tccactttca cgtccaccgg tatccaatag acacctccc cacatccaag 1100
 gaggaccttc aactctggtg ccacaaacgg tgggaagaga aagaagagag 1150
 gctgcgttcc ttctatcaag gggagaagaa tttttatatt accggacaga 1200
 gtgtcattcc accttgcaag tctgaactca gggctcctgt ggtcaaattg 1250
 ctctctatac tgtattggac cctgttcagc cctgcaatgt gcctactcat 1300
 atatttgtac agtcttgta agtgggtatt tataatcacc attgtaatct 1350
 ttgtgctgca agagagaata tttggtggac tggagatcat agaacttgca 1400
 tgttaccgac ttttacacaa acagccacat ttaaattcaa agaaaaatga 1450
 gtaagattat aaggtttgcc atgtgaaaac ctagagcata ttttggaat 1500
 gttctaaaacc tttctaagct cagatgcatt tttgcatgac tatgtcgaat 1550
 atttcttact gccatcatta tttgttaaag atattttgca ctttaatttg 1600
 tgggaaaaat attgctacaa ttttttttaa tctctgaatg taatttcgat 1650
 actgtgtaca tagcaggag tgatcggggg gaaataactt ggcccagaat 1700
 attattaac aatcatcagg cttttaaa 1728

<210> 232
 <211> 414
 <212> PRT
 <213> Homosapiens

<400> 232
 Met His Ser Arg Gly Arg Glu Ile Val Val Leu Leu Asn Pro Trp
 1 5 10 15
 Ser Ile Asn Glu Ala Val Ser Ser Tyr Cys Thr Tyr Phe Ile Lys
 20 25 30
 Gln Asp Ser Lys Ser Phe Gly Ile Met Val Ser Trp Lys Gly Ile
 35 40 45

Tyr	Phe	Ile	Leu	Thr	Leu	Phe	Trp	Gly	Ser	Phe	Phe	Gly	Ser	Ile
				50					55					60
Phe	Met	Leu	Ser	Pro	Phe	Leu	Pro	Leu	Met	Phe	Val	Asn	Pro	Ser
				65					70					75
Trp	Tyr	Arg	Trp	Ile	Asn	Asn	Arg	Leu	Val	Ala	Thr	Trp	Leu	Thr
				80					85					90
Leu	Pro	Val	Ala	Leu	Leu	Glu	Thr	Met	Phe	Gly	Val	Lys	Val	Ile
				95					100					105
Ile	Thr	Gly	Asp	Ala	Phe	Val	Pro	Gly	Glu	Arg	Ser	Val	Ile	Ile
				110					115					120
Met	Asn	His	Arg	Thr	Arg	Met	Asp	Trp	Met	Phe	Leu	Trp	Asn	Cys
				125					130					135
Leu	Met	Arg	Tyr	Ser	Tyr	Leu	Arg	Leu	Glu	Lys	Ile	Cys	Leu	Lys
				140					145					150
Ala	Ser	Leu	Lys	Gly	Val	Pro	Gly	Phe	Gly	Trp	Ala	Met	Gln	Ala
				155					160					165
Ala	Ala	Tyr	Ile	Phe	Ile	His	Arg	Lys	Trp	Lys	Asp	Asp	Lys	Ser
				170					175					180
His	Phe	Glu	Asp	Met	Ile	Asp	Tyr	Phe	Cys	Asp	Ile	His	Glu	Pro
				185					190					195
Leu	Gln	Leu	Leu	Ile	Phe	Pro	Glu	Gly	Thr	Asp	Leu	Thr	Glu	Asn
				200					205					210
Ser	Lys	Ser	Arg	Ser	Asn	Ala	Phe	Ala	Glu	Lys	Asn	Gly	Leu	Gln
				215					220					225
Lys	Tyr	Glu	Tyr	Val	Leu	His	Pro	Arg	Thr	Thr	Gly	Phe	Thr	Phe
				230					235					240
Val	Val	Asp	Arg	Leu	Arg	Glu	Gly	Lys	Asn	Leu	Asp	Ala	Val	His
				245					250					255
Asp	Ile	Thr	Val	Ala	Tyr	Pro	His	Asn	Ile	Pro	Gln	Ser	Glu	Lys
				260					265					270
His	Leu	Leu	Gln	Gly	Asp	Phe	Pro	Arg	Glu	Ile	His	Phe	His	Val
				275					280					285
His	Arg	Tyr	Pro	Ile	Asp	Thr	Leu	Pro	Thr	Ser	Lys	Glu	Asp	Leu
				290					295					300
Gln	Leu	Trp	Cys	His	Lys	Arg	Trp	Glu	Glu	Lys	Glu	Glu	Arg	Leu
				305					310					315
Arg	Ser	Phe	Tyr	Gln	Gly	Glu	Lys	Asn	Phe	Tyr	Phe	Thr	Gly	Gln
				320					325					330
Ser	Val	Ile	Pro	Pro	Cys	Lys	Ser	Glu	Leu	Arg	Val	Leu	Val	Val
				335					340					345
Lys	Leu	Leu	Ser	Ile	Leu	Tyr	Trp	Thr	Leu	Phe	Ser	Pro	Ala	Met
				350					355					360

Cys Leu Leu Ile Tyr Leu Tyr Ser Leu Val Lys Trp Tyr Phe Ile
 365 370 375
 Ile Thr Ile Val Ile Phe Val Leu Gln Glu Arg Ile Phe Gly Gly
 380 385 390
 Leu Glu Ile Ile Glu Leu Ala Cys Tyr Arg Leu Leu His Lys Gln
 395 400 405
 Pro His Leu Asn Ser Lys Lys Asn Glu
 410

<210> 233

<211> 1630

<212> DNA

<213> Homosapiens

<400> 233

cggtctgagt gcagctgtgg ggagatttca gtgcattgcc tcccctgggt 50
 gctcttcac ttgatttga aagttgagag cagcatgttt tgcccactga 100
 aactcatcct gctgccagtg ttactggatt attccttggg cctgaatgac 150
 ttgaatgttt ccccgctga gctaacagtc catgtgggtg attcagctct 200
 gatgggatgt gttttccaga gcacagaaga caaatgtata ttcaagatag 250
 actggactct gtcaccagga gagcacgcca aggacgaata tgtgtctatac 300
 tattactcca atctcagtgt gcctattggg cgcttccaga accgcgtaca 350
 cttgatgggg gacatcttat gcaatgatgg ctctctcctg ctccaagatg 400
 tgcaagaggc tgaccaggga acctatatct gtgaaatccg cctcaaaggg 450
 gagagccagg tgttcaagaa ggcggtggta ctgcatgtgc ttccagagga 500
 gcccaaaagc ctcatgggtcc atgtgggtgg attgattcag atgggatgtg 550
 ttttccagag cacagaagtg aaacacgtga ccaaggtaga atggatattt 600
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 ggagtggagg agtcagatgg aggaaactac acctgcagta tccacctagg 800
 gaacctgggt ttcaagaaaa ccattgtgct gcatgtcagc ccggaagagc 850
 ctcgaaactt ggtgaccccg gcagccctga ggcctctggt cttgggtggg 900
 aatcagttgg tgatcattgt ggaattgtc tgtgccacaa tctgtgtgct 950
 ccctgttctg atattgatcg tgaagaagac ctgtggaat aagagttcag 1000
 tgaattctac agtcttgggt aagaacacga agaagactaa tccagagata 1050
 aaagaaaaac cctgccattt tgaagatgtg gaaggggaga aacacattta 1100
 ctcccaata attgtacggg aggtgatcga ggaagaagaa ccaagtgaat 1150

aatcagaggg cacctacatg accatgcacc cagtttgccc ttctctgagg 1200
 tcagatcgga acaactcact tgaaaaaaag tcaggtgggg gaatgccaaa 1250
 aacacagcaa gccttttgag aagaatggag agtcccttca tctcagcagc 1300
 ggtgggagact ctctcctgtg tgtgtcctgg gccactctac cagtgatctc 1350
 agactcccg ctcctccagct gtctcctctgt ctcatgtgtt ggtcaataca 1400
 ctgaagatgg agaatttggg gcctggcaga gagaactggac agctctggag 1450
 gaacaggcct gctgagggga ggggagcatg gacttggcct ctggagtgagg 1500
 acactggccc tgggaaccag gctgagctga gtggcctcaa accccccgtt 1550
 ggatcagacc ctctctgtggg cagggttctt agtggatgag ttactgggaa 1600
 gaatcagaga taaaaaccaa cccaaatcaa 1630

<210> 234
 <211> 394
 <212> PRT
 <213> Homosapiens

<400> 234
 Met Phe Cys Pro Leu Lys Leu Ile Leu Leu Pro Val Leu Leu Asp
 1 5 10 15
 Tyr Ser Leu Gly Leu Asn Asp Leu Asn Val Ser Pro Pro Glu Leu
 20 25 30
 Thr Val His Val Gly Asp Ser Ala Leu Met Gly Cys Val Phe Gln
 35 40 45
 Ser Thr Glu Asp Lys Cys Ile Phe Lys Ile Asp Trp Thr Leu Ser
 50 55 60
 Pro Gly Glu His Ala Lys Asp Glu Tyr Val Leu Tyr Tyr Tyr Ser
 65 70 75
 Asn Leu Ser Val Pro Ile Gly Arg Phe Gln Asn Arg Val His Leu
 80 85 90
 Met Gly Asp Ile Leu Cys Asn Asp Gly Ser Leu Leu Leu Gln Asp
 95 100 105
 Val Gln Glu Ala Asp Gln Gly Thr Tyr Ile Cys Glu Ile Arg Leu
 110 115 120
 Lys Gly Glu Ser Gln Val Phe Lys Lys Ala Val Val Leu His Val
 125 130 135
 Leu Pro Glu Glu Pro Lys Glu Leu Met Val His Val Gly Gly Leu
 140 145 150
 Ile Gln Met Gly Cys Val Phe Gln Ser Thr Glu Val Lys His Val
 155 160 165
 Thr Lys Val Glu Trp Ile Phe Ser Gly Arg Arg Ala Lys Glu Glu
 170 175 180
 Ile Val Phe Arg Tyr Tyr His Lys Leu Arg Met Ser Val Glu Tyr

	185	190	195
Ser Gln Ser Trp	Gly His Phe Gln Asn Arg Val Asn Leu Val Gly		
	200	205	210
Asp Ile Phe Arg	Asn Asp Gly Ser Ile Met Leu Gln Gly Val Arg		
	215	220	225
Glu Ser Asp Gly	Gly Asn Tyr Thr Cys Ser Ile His Leu Gly Asn		
	230	235	240
Leu Val Phe Lys	Lys Thr Ile Val Leu His Val Ser Pro Glu Glu		
	245	250	255
Pro Arg Thr Leu	Val Thr Pro Ala Ala Leu Arg Pro Leu Val Leu		
	260	265	270
Gly Gly Asn Gln	Leu Val Ile Ile Val Gly Ile Val Cys Ala Thr		
	275	280	285
Ile Leu Leu Leu	Pro Val Leu Ile Leu Ile Val Lys Lys Thr Cys		
	290	295	300
Gly Asn Lys Ser	Ser Val Asn Ser Thr Val Leu Val Lys Asn Thr		
	305	310	315
Lys Lys Thr Asn	Pro Glu Ile Lys Glu Lys Pro Cys His Phe Glu		
	320	325	330
Arg Cys Glu Gly	Glu Lys His Ile Tyr Ser Pro Ile Ile Val Arg		
	335	340	345
Glu Val Ile Glu	Glu Glu Glu Pro Ser Glu Lys Ser Glu Ala Thr		
	350	355	360
Tyr Met Thr Met	His Pro Val Trp Pro Ser Leu Arg Ser Asp Arg		
	365	370	375
Asn Asn Ser Leu	Glu Lys Lys Ser Gly Gly Gly Met Pro Lys Thr		
	380	385	390
Gln Gln Ala Phe			

<210> 235

<211> 537

<212> DNA

<213> Homosapiens

<400> 235

taaaacagct acaatattcc agggccagtc acttgccatt tctcataaca 50
 gcgtcagaga gaaagaactg actgaaacgt ttgagatgaa gaaagttctc 100
 ctctctgatca cagccatctt ggcagtggtc gttggtttcc cagtctctca 150
 agaccaggaa cgagaaaaaa gaagtatcag tgacagcgat gaattagctt 200
 cagggttttt tgtgttcctt tacccatatt catttcgccc acttccacca 250
 attccatttc caagatttcc atggttttaga cgtaattttc ctattccaat 300
 acctgaatct gccctacaa ctccccttcc tagcgaaaag taaacaagaa 350

ggataagtca cgataaacct ggtcacctga aattgaaatt gagccacttc 400
 cttgaagaat caaaattcct gttaataaaa gaaaaacaaa tgtaattgaa 450
 atagcacaca gcattctcta gtcaatatct ttagtgatct tctttaataa 500
 acatgaaagc aaagattttg gtttcttaat ttccaca 537

<210> 236

<211> 85

<212> PRT

<213> Homosapiens

<400> 236

Met	Lys	Lys	Val	Leu	Leu	Leu	Ile	Thr	Ala	Ile	Leu	Ala	Val	Ala	
1				5					10					15	
Val	Gly	Phe	Pro	Val	Ser	Gln	Asp	Gln	Glu	Arg	Glu	Lys	Arg	Ser	
				20					25					30	
Ile	Ser	Asp	Ser	Asp	Glu	Leu	Ala	Ser	Gly	Phe	Phe	Val	Phe	Pro	
				35					40					45	
Tyr	Pro	Tyr	Pro	Phe	Arg	Pro	Leu	Pro	Pro	Ile	Pro	Phe	Pro	Arg	
				50					55					60	
Phe	Pro	Trp	Phe	Arg	Arg	Asn	Phe	Pro	Ile	Pro	Ile	Pro	Glu	Ser	
				65					70					75	
Ala	Pro	Thr	Thr	Pro	Leu	Pro	Ser	Glu	Lys						
				80					85						

<210> 237

<211> 1315

<212> DNA

<213> Homosapiens

<400> 237

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 gaccgctttc atcggcaaca gcatcgtggt ggcccagggt gtgtgggagg 150
 gcctgtggat gtctcgcgtg gtgcagagca ccggccagat gcagtgcgaag 200
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<210> 238
 <211> 220
 <212> PRT
 <213> Homosapiens

<400> 238
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 20 25 30
 Lys Val Thr Ala Phe Ile Gly Asn Ser Ile Val Val Ala Gln Val
 35 40 45
 Val Trp Glu Gly Leu Trp Met Ser Cys Val Val Gln Ser Thr Gly
 50 55 60
 Gln Met Gln Cys Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln
 65 70 75
 Asp Leu Gln Ala Ala Arg Ala Leu Cys Val Ile Ala Leu Leu Val
 80 85 90
 Ala Leu Phe Gly Leu Leu Val Tyr Leu Ala Gly Ala Lys Cys Thr
 95 100 105
 Thr Cys Val Glu Glu Lys Asp Ser Lys Ala Arg Leu Val Leu Thr
 110 115 120
 Ser Gly Ile Val Phe Val Ile Ser Gly Val Leu Thr Leu Ile Pro
 125 130 135
 Val Cys Trp Thr Ala His Ala Ile Ile Arg Asp Phe Tyr Asn Pro
 140 145 150

Leu Val Ala Glu Ala Gln Lys Arg Glu Leu Gly Ala Ser Leu Tyr
 155 160
 Leu Gly Trp Ala Ala Ser Gly Leu Leu Leu Gly Gly Gly Leu
 170 175
 Leu Cys Cys Thr Cys Pro Ser Gly Gly Ser Gln Gly Pro Ser His
 185 190
 Tyr Met Ala Arg Tyr Ser Thr Ser Ala Pro Ala Ile Ser Arg Gly
 200 205
 Pro Ser Glu Tyr Pro Thr Lys Asn Tyr Val
 215 220

<210> 239
 <211> 535
 <212> DNA
 <213> Homosapiens

<400> 239
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 ctccagaagct gctagtctgt ctccaaaaaa agtggactgc agcatttaca 150
 agaagtatcc agtgggtggcc atccccctgcc ccatcacata cctaccagtt 200
 tgtggttctg actacatcac ctatgggaat gaatgtcact tgtgtaccga 250
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 tcatcatccc aggctctgac tgagtttctt tcagttttac tgatgttctg 400
 ggtgggggag agagccagat tcagagtaat cttgactgaa tggagaaagt 450
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 tttttaacac gtcaataaaa aaataatctc ccaga 535

<210> 240
 <211> 85
 <212> PRT
 <213> Homosapiens

<400> 240
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 20 25 30
 Asp Cys Ser Ile Tyr Lys Lys Tyr Pro Val Val Ala Ile Pro Cys
 35 40 45
 Pro Ile Thr Tyr Leu Pro Val Cys Gly Ser Asp Tyr Ile Thr Tyr
 50 55 60
 Gly Asn Glu Cys His Leu Cys Thr Glu Ser Leu Lys Ser Asn Gly
 65 70 75

Arg Val Gln Phe Leu His Asp Gly Ser Cys
80 85

<210> 241
<211> 742
<212> DNA
<213> Homosapiens

<400> 241
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tgccctgac cgggtggtg ctgctcctgc tctgtgtgtg gggccaggt 150
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tgttccaact aagactaaag tggccgttga tgagaataaa gccaaagaat 250
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cccgaagtgc agcagtggta ccagcagttt ctctacatgg gctttgatga 350
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gacatgaata ctatggcgat tactaccaac gtcactatga tgaagactct 450
gcaattgtgc cccggagccc ctacggcttt aggcattggg ccagcgctca 500
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tttgcctcat ttcagcagat cttttctacc tactttgtgt gatcaaaaa 650
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cctctcattt aaaaatagaa ataaagcatt ttgttaaaaa ga 742

<210> 242
<211> 148
<212> PRT
<213> Homosapiens

<400> 242
Met Ala Ala Ser Pro Ala Arg Pro Ala Val Leu Ala Leu Thr Gly
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Leu Ala Leu Leu Leu Leu Leu Cys Trp Gly Pro Gly Gly Ile Ser
20 25 30
Gly Asn Lys Leu Lys Leu Met Leu Gln Lys Arg Glu Ala Pro Val
35 40 45
Pro Thr Lys Thr Lys Val Ala Val Asp Glu Asn Lys Ala Lys Glu
50 55 60
Phe Leu Gly Ser Leu Lys Arg Gln Lys Arg Gln Leu Trp Asp Arg
65 70 75
Thr Arg Pro Glu Val Gln Gln Trp Tyr Gln Gln Phe Leu Tyr Met
80 85 90

Gly	Phe	Asp	Glu	Ala	Lys	Phe	Glu	Asp	Asp	Ile	Thr	Tyr	Trp	Leu
				95					100					105
Asn	Arg	Asp	Arg	Asn	Gly	His	Glu	Tyr	Tyr	Gly	Asp	Tyr	Tyr	Gln
				110					115					120
Arg	His	Tyr	Asp	Glu	Asp	Ser	Ala	Ile	Gly	Pro	Arg	Ser	Pro	Tyr
				125					130					135
Gly	Phe	Arg	His	Gly	Ala	Ser	Val	Asn	Tyr	Asp	Asp	Tyr		
				140					145					

<210> 243

<211> 2119

<212> DNA

<213> Homosapiens

<400> 243

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gacatgttgc cactgggggg agacagcatt gttcatgtgc aacgcttcca 200
gaaaatgctg catcagctac tccttcctgc cgaagcctga cctaccacag 250
ctcatcgcta accactggca atcaaggaga agaaacacac aaaggaaga 300
caagaagcaa caaacgaccg taacatcata ataaccactg ctatgcctc 350
caccaactca gagaaataac atttcacag ttccaattcc tctacattg 400
ctgagtacta gccaaaggctc ctctttatgg ggcagatata tatagccaac 450
cccaaaactt ctgtcttcta tcattctgtc attcatctag taactaattt 500
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tggggtgact gctacatag gtctggaagt atgaggctgt ccaccaacta 950
tccccttgaa gcaagttctc ttgaaaggaa atctaacag tgcaccccca 1000
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 ataaatactc ttccgtcata tgaatagtat tcatttgat actggtttgt 2050
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<210> 244
 <211> 95
 <212> PRT
 <213> Homosapiens

<400> 244
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 20 25 30
 Thr Pro Gly Tyr Cys Arg Thr Cys Cys His Trp Gly Glu Thr Ala
 35 40 45
 Leu Phe Met Cys Asn Ala Ser Arg Lys Cys Cys Ile Ser Tyr Ser
 50 55 60
 Phe Leu Pro Lys Pro Asp Leu Pro Gln Leu Ile Gly Asn His Trp
 65 70 75
 Gln Ser Arg Arg Arg Asn Thr Gln Arg Lys Asp Lys Lys Gln Gln
 80 85 90

Thr Thr Val Thr Ser
95

<210> 245

<211> 1257

<212> DNA

<213> Homosapiens

<400> 245

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ccgctccag ctccgcgctg ccgggcagcc gggagccatg cgaacccagg 150
gccccgcgc ctccccgcag cggctccgcg gcctcctgct gctcctgctg 200
ctgcagctgc ccgcgcgctc ggcgcctctc gagatcccca aggggaagca 250
aaaggcgag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300
gcttacaagg gccagcagga gtgcctggtc gagacgggag ccttggggcc 350
aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400
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<210> 246

<211> 243

<212> PRT
 <213> Homosapiens

<400> 246

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				20					25						
Ser	Glu	Ile	Pro	Lys	Gly	Lys	Gln	Lys	Ala	Gln	Leu	Arg	Gln	Arg	45
				35					40						
Glu	Val	Val	Asp	Leu	Tyr	Asn	Gly	Met	Cys	Leu	Gln	Gly	Pro	Ala	60
				50					55						
Gly	Val	Pro	Gly	Arg	Asp	Gly	Ser	Pro	Gly	Ala	Asn	Val	Ile	Pro	75
				65					70						
Gly	Thr	Pro	Gly	Ile	Pro	Gly	Arg	Asp	Gly	Phe	Lys	Gly	Glu	Lys	90
				80					85						
Gly	Glu	Cys	Leu	Arg	Glu	Ser	Phe	Glu	Glu	Ser	Trp	Thr	Pro	Asn	105
				95					100						
Tyr	Lys	Gln	Cys	Ser	Trp	Ser	Ser	Leu	Asn	Tyr	Gly	Ile	Asp	Leu	120
				110					115						
Gly	Lys	Ile	Ala	Glu	Cys	Thr	Phe	Thr	Lys	Met	Arg	Ser	Asn	Ser	135
				125					130						
Ala	Leu	Arg	Val	Leu	Phe	Ser	Gly	Ser	Leu	Arg	Leu	Lys	Cys	Arg	150
				140					145						
Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr	Phe	Asn	Gly	Ala	Glu	165
				155					160						
Cys	Ser	Gly	Pro	Leu	Pro	Ile	Glu	Ala	Ile	Ile	Tyr	Leu	Asp	Gln	180
				170					175						
Gly	Ser	Pro	Glu	Met	Asn	Ser	Thr	Ile	Asn	Ile	His	Arg	Thr	Ser	195
				185					190						
Ser	Val	Glu	Gly	Leu	Cys	Glu	Gly	Ile	Gly	Ala	Gly	Leu	Val	Asp	210
				200					205						
Val	Ala	Ile	Trp	Val	Gly	Thr	Cys	Ser	Asp	Tyr	Pro	Lys	Gly	Asp	225
				215					220						
Ala	Ser	Thr	Gly	Trp	Asn	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu	240
				230					235						

Leu Pro Lys

<210> 247
 <211> 2134
 <212> DNA
 <213> Homosapiens

<400> 247

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<210> 248
 <211> 157
 <212> PRT
 <213> Homosapiens

<400> 248
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 35 40 45
 Ile Pro Val Ser Gly Ala Leu Leu Thr Asp Trp Ser Asp Asp Thr
 50 55 60
 Met Lys Glu Leu His Leu Ala Ile Pro Ala Lys Ile Thr Arg Glu
 65 70 75
 Lys Leu Asp Gln Val Ala Thr Ala Val Tyr Gln Met Met Asp Gln
 80 85 90
 Leu Tyr Gln Gly Lys Met Tyr Phe Pro Gly Tyr Phe Pro Asn Glu
 95 100 105
 Leu Arg Asn Ile Phe Arg Glu Gln Val His Leu Ile Gln Asn Ala
 110 115 120
 Ile Ile Glu Arg His Leu Ala Pro Gly Ser Trp Gly Gly Gly Gln
 125 130 135
 Leu Ser Arg Glu Gly Pro Ser Leu Ala Pro Glu Gly Ser Met Pro
 140 145 150
 Ser Pro Arg Gly Asp Leu Pro
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<210> 249
 <211> 2387
 <212> DNA
 <213> Homosapiens

<400> 249

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 cttcagagtt gtcaaacccag tgaagaatgt gaattagcaa gggctaacag 1450
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ctttctttgt	aaatagtctt	gagttctgtc	aaatgccgtg	aaagtatttg	2350
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<210> 250
<211> 487
<212> PRT
<213> Homosapiens
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<400> 250														
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Ser	Leu	Leu	Glu	35	Arg	Asp	Pro	Val	40	Ser	Ser	Leu	Ser	Pro
Tyr	Phe	Gly	Thr	50	Thr	Arg	Tyr	Glu	55	Val	Asn	Pro	Val	Leu
Leu	Ser	Gly	Pro	65	Ala	Pro	Trp	Arg	70	Pro	Glu	Leu	Leu	Glu
Gly	Thr	Cys	Thr	80	Val	Gln	Leu	Val	85	Leu	Ile	Arg	His	Gly
Thr	Arg	Tyr	Pro	95	Val	Lys	Gln	Ile	100	Lys	Leu	Arg	Gln	Leu
His	Gly	Leu	Leu	110	Ala	Arg	Gly	Ser	115	Asp	Gly	Gly	Ala	Ser

Ser Thr Gly Ser	Arg 125	Asp	Leu	Gly	Ala	Ala 130	Leu	Ala	Asp	Trp	Pro 135
Leu Trp Tyr Ala	Asp 140	Trp	Met	Asp	Gly	Gln 145	Leu	Val	Glu	Lys	Gly 150
Arg Gln Asp Met	Arg 155	Gln	Leu	Ala	Leu	Arg 160	Leu	Ala	Ser	Leu	Phe 165
Pro Ala Leu Phe	Ser 170	Arg	Glu	Asn	Tyr	Gly 175	Arg	Leu	Arg	Leu	Ile 180
Thr Ser Ser Lys	His 185	Arg	Cys	Met	Asp	Ser 190	Ser	Ala	Ala	Phe	Leu 195
Gln Gly Leu Trp	Gln 200	His	Tyr	His	Pro	Gly 205	Leu	Pro	Pro	Pro	Asp 210
Val Ala Asp Met	Glu 215	Phe	Gly	Pro	Pro	Thr 220	Val	Asn	Asp	Lys	Leu 225
Met Arg Phe Phe	Asp 230	His	Cys	Glu	Lys	Phe 235	Leu	Thr	Glu	Val	Glu 240
Lys Asn Ala Thr	Ala 245	Leu	Tyr	His	Val	Glu 250	Ala	Phe	Lys	Thr	Gly 255
Pro Glu Met Gln	Asn 260	Ile	Leu	Lys	Lys	Val 265	Ala	Ala	Thr	Leu	Gln 270
Val Pro Val Asn	Asp 275	Leu	Asn	Ala	Asp	Leu 280	Ile	Gln	Val	Ala	Phe 285
Phe Thr Cys Ser	Phe 290	Asp	Leu	Ala	Ile	Lys 295	Gly	Val	Lys	Ser	Pro 300
Trp Cys Asp Val	Phe 305	Asp	Ile	Asp	Asp	Ala 310	Lys	Val	Leu	Glu	Tyr 315
Leu Asn Asp Leu	Lys 320	Gln	Tyr	Trp	Lys	Arg 325	Gly	Tyr	Gly	Tyr	Thr 330
Ile Asn Ser Arg	Ser 335	Ser	Cys	Thr	Leu	Phe 340	Gln	Asp	Ile	Phe	Gln 345
His Leu Asp Lys	Ala 350	Val	Glu	Gln	Lys	Gln 355	Arg	Ser	Gln	Pro	Ile 360
Ser Ser Pro Val	Ile 365	Leu	Gln	Phe	Gly	His 370	Ala	Glu	Thr	Leu	Leu 375
Pro Leu Leu Ser	Leu 380	Met	Gly	Tyr	Phe	Lys 385	Asp	Lys	Glu	Pro	Leu 390
Thr Ala Tyr Asn	Tyr 395	Lys	Lys	Gln	Met	His 400	Arg	Lys	Phe	Arg	Ser 405
Gly Leu Ile Val	Pro 410	Tyr	Ala	Ser	Asn	Leu 415	Ile	Phe	Val	Leu	Tyr 420
His Cys Glu Asn	Ala 425	Lys	Thr	Pro	Lys	Glu 430	Gln	Phe	Arg	Val	Gln 435

Met Leu Leu Asn Glu Lys Val Leu Pro Leu Ala Tyr Ser Gln Glu
 440 445 450
 Thr Val Ser Phe Tyr Glu Asp Leu Lys Asn His Tyr Lys Asp Ile
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 Leu Gln Ser Cys Gln Thr Ser Glu Glu Cys Glu Leu Ala Arg Ala
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 Asn Ser Thr Ser Asp Glu Leu
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<210> 251
 <211> 1777
 <212> DNA
 <213> Homosapiens

<400> 251
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 tagtacgact ggcggttga cctcagcttc ctggagcttc cagccagagg 400
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<210> 252

<211> 269

<212> PRT

<213> Homosapiens

<400> 252

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Ser	Arg	Arg	Trp	Leu	Trp	Ser	Val	Leu	Ala	Ala	Ala	Leu	Gly	Leu	20	25	30	
Leu	Thr	Ala	Gly	Val	Ser	Ala	Leu	Glu	Val	Tyr	Thr	Pro	Lys	Glu	35	40	45	
Ile	Phe	Val	Ala	Asn	Gly	Thr	Gln	Gly	Lys	Leu	Thr	Cys	Lys	Phe	50	55	60	
Lys	Ser	Thr	Ser	Thr	Thr	Gly	Gly	Leu	Thr	Ser	Val	Ser	Trp	Ser	65	70	75	
Phe	Gln	Pro	Glu	Gly	Ala	Asp	Thr	Thr	Val	Ser	Phe	Phe	His	Tyr	80	85	90	
Ser	Gln	Gly	Gln	Val	Tyr	Leu	Gly	Asn	Tyr	Pro	Pro	Phe	Lys	Asp	95	100	105	
Arg	Ile	Ser	Trp	Ala	Gly	Asp	Leu	Asp	Lys	Lys	Asp	Ala	Ser	Ile	110	115	120	
Asn	Ile	Glu	Asn	Met	Gln	Phe	Ile	His	Asn	Gly	Thr	Tyr	Ile	Cys	125	130	135	
Asp	Val	Lys	Asn	Pro	Pro	Asp	Ile	Val	Val	Gln	Pro	Gly	His	Ile	140	145	150	
Arg	Leu	Tyr	Val	Val	Glu	Lys	Glu	Asn	Leu	Pro	Val	Phe	Pro	Val				

	155		160		165
Trp Val Val Val Gly Ile Val Thr Ala Val Val Leu Gly Leu Thr	170		175		180
Leu Leu Ile Ser Met Ile Leu Ala Val Leu Tyr Arg Arg Lys Asn	185		190		195
Ser Lys Arg Asp Tyr Thr Gly Cys Ser Thr Ser Glu Ser Leu Ser	200		205		210
Pro Val Lys Gln Ala Pro Arg Lys Ser Pro Ser Asp Thr Glu Gly	215		220		225
Leu Val Lys Ser Leu Pro Ser Gly Ser His Gln Gly Pro Val Ile	230		235		240
Tyr Ala Gln Leu Asp His Ser Gly Gly His Ser Asp Lys Ile	245		250		255
Asn Lys Ser Glu Ser Val Val Tyr Ala Asp Ile Arg Lys Asn	260		265		

<210> 253

<211> 1150

<212> DNA

<213> Homosapiens

<400> 253

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agtcgagccc ggggcagcgg ctgccgggcc gggactgggt cgcgaggggc 200

tggggcggaa ggtcgagagg gcgaggcctg tggcacgggt gggctgctgc 250

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<210> 254

<211> 269

<212> PRT

<213> Homosapiens

<400> 254

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Arg	Ala	Gly	Thr	Gly	Ala	Arg	Gly	Ala	Gly	Ala	Glu	Gly	Arg	Glu	35	40	45	
Gly	Glu	Ala	Cys	Gly	Thr	Val	Gly	Leu	Leu	Leu	Glu	His	Ser	Phe	50	55	60	
Glu	Ile	Asp	Asp	Ser	Ala	Asn	Phe	Arg	Lys	Arg	Gly	Ser	Leu	Leu	65	70	75	
Trp	Asn	Gln	Gln	Asp	Gly	Thr	Leu	Ser	Leu	Ser	Gln	Arg	Gln	Leu	80	85	90	
Ser	Glu	Glu	Glu	Arg	Gly	Arg	Leu	Arg	Asp	Val	Ala	Ala	Leu	Asn	95	100	105	
Gly	Leu	Tyr	Arg	Val	Arg	Ile	Pro	Arg	Arg	Pro	Gly	Ala	Leu	Asp	110	115	120	
Gly	Leu	Glu	Ala	Gly	Gly	Tyr	Val	Ser	Ser	Phe	Val	Pro	Ala	Cys	125	130	135	
Ser	Leu	Val	Glu	Ser	His	Leu	Ser	Asp	Gln	Leu	Thr	Leu	His	Val	140	145	150	
Asp	Val	Ala	Gly	Asn	Val	Val	Gly	Val	Ser	Val	Val	Thr	His	Pro	155	160	165	
Gly	Gly	Cys	Arg	Gly	His	Glu	Val	Glu	Asp	Val	Asp	Leu	Glu	Leu	170	175	180	
Phe	Asn	Thr	Ser	Val	Gln	Leu	Gln	Pro	Pro	Thr	Thr	Ala	Pro	Gly	185	190	195	
Pro	Glu	Thr	Ala	Ala	Phe	Ile	Glu	Arg	Leu	Glu	Met	Glu	Gln	Ala	200	205	210	
Gln	Lys	Ala	Lys	Asn	Pro	Gln	Glu	Gln	Lys	Ser	Phe	Phe	Ala	Lys	215	220	225	

Tyr Trp Met Tyr Ile Ile Pro Val Val Leu Phe Leu Met Met Ser
230 235

Gly Ala Pro Asp Thr Gly Gly Gln Gly Gly Gly Gly Gly Gly
245 250 255

Gly Gly Gly Gly Ser Gly Leu Cys Cys Val Pro Pro Ser Leu
260 265

<210> 255

<211> 1098

<212> DNA

<213> Homosapiens

<400> 255

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cccagggcc ccaagggtgt ctcatgtcac aagaagagggc aagagacagg 850
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gcctgagagc catctgtgac ctgtcacact cacctggctc cagcctcccc 950
taccagggtt ctctgcacag tgaccttcac agcagttgtt ggagtgtgtt 1000
aaagagctgg tgtttgggga ctcaataaac cctcaactgac tttttagcaa 1050
taaagcttct catcagggtt gcaaaaaaaaa aaaaaaaaaa aaaaaaaaa 1098

<210> 256

<211> 188

<212> PRT

<213> Homosapiens

<400> 256

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Pro Ala Cys Val Ala Ala His Gly Phe Arg Ile His Asp Tyr Leu
          20          25          30
Tyr Phe Gln Val Leu Ser Pro Gly Asp Ile Arg Tyr Ile Phe Thr
          35          40          45
Ala Thr Pro Ala Lys Asp Phe Gly Gly Ile Phe His Thr Arg Tyr
          50          55          60
Glu Gln Ile His Leu Val Pro Ala Glu Pro Pro Glu Ala Cys Gly
          65          70          75
Glu Leu Ser Asn Gly Phe Phe Ile Gln Asp Gln Ile Ala Leu Val
          80          85          90
Glu Arg Gly Gly Cys Ser Phe Leu Ser Lys Thr Arg Val Val Gln
          95          100          105
Glu His Gly Gly Arg Ala Val Ile Ile Ser Asp Asn Ala Val Asp
          110          115          120
Asn Asp Ser Phe Tyr Val Glu Met Ile Gln Asp Ser Thr Gln Arg
          125          130          135
Thr Ala Asp Ile Pro Ala Leu Phe Leu Leu Gly Arg Asp Gly Tyr
          140          145          150
Met Ile Arg Arg Ser Leu Glu Gln His Gly Leu Pro Trp Ala Ile
          155          160          165
Ile Ser Ile Pro Val Asn Val Thr Ser Ile Pro Thr Phe Glu Leu
          170          175          180
Leu Gln Pro Pro Trp Thr Phe Trp
          185

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<210> 257

<211> 764

<212> DNA

<213> Homosapiens

<400> 257

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ctcctggggg gccccacctg ggcagggaag atgtatggcc ctggaggagg 200
caagtatttc agcaccactg aagactacga ccatgaaatc acagggctgc 250
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gactcctggg acgtgaaact gggagcctta ggtgggaata ccagggaagt 350
caccctgcag ccaggcgaat acatcacaaa agtctttgtc gccttccaag 400
ctttctcccg gggatatgtc atgtacacca gcaaggaccg ctatttctat 450

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ccagttaatc tcacatactc agcaaaactca cccgtgggtc gctaggggtg 650
ggtatggggc catccgagct gaggccatct gtgtgggtgt ggctgatggt 700
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<210> 258

<211> 178

<212> PRT

<213> Homosapiens

<400> 258

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Gly	Lys	Tyr	Phe	Ser	Thr	Thr	Glu	Asp	Tyr	Asp	His	Glu	Ile	Thr	35	40	45	
Gly	Leu	Arg	Val	Ser	Val	Gly	Leu	Leu	Val	Lys	Ser	Val	Gln		50	55	60	
Val	Lys	Leu	Gly	Asp	Ser	Trp	Asp	Val	Lys	Leu	Gly	Ala	Leu	Gly	65	70	75	
Gly	Asn	Thr	Gln	Glu	Val	Thr	Leu	Gln	Pro	Gly	Glu	Tyr	Ile	Thr	80	85	90	
Lys	Val	Phe	Val	Ala	Phe	Gln	Ala	Phe	Leu	Arg	Gly	Met	Val	Met	95	100	105	
Tyr	Thr	Ser	Lys	Asp	Arg	Tyr	Phe	Tyr	Phe	Gly	Lys	Leu	Asp	Gly	110	115	120	
Gln	Ile	Ser	Ser	Ala	Tyr	Pro	Ser	Gln	Glu	Gly	Gln	Val	Leu	Val	125	130	135	
Gly	Ile	Tyr	Gly	Gln	Tyr	Gln	Leu	Leu	Gly	Ile	Lys	Ser	Ile	Gly	140	145	150	
Phe	Glu	Trp	Asn	Tyr	Pro	Leu	Glu	Glu	Pro	Thr	Thr	Glu	Pro	Pro	155	160	165	
Val	Asn	Leu	Thr	Tyr	Ser	Ala	Asn	Ser	Pro	Val	Gly	Arg			170	175		

<210> 259

<211> 798

<212> DNA

<213> Homosapiens

<220>

<221> unsure

<222> 794

<223> unknown base

<400> 259

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 ggaagcagga accaagctta ggctgctcca tcccagctat cctgttcttg 200
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 gcccacgaca ggccaggctc agagagaccg aggagggaga gtctcccagg 650
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<210> 260

<211> 134

<212> PRT

<213> Homosapiens

<400> 260

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Ala	Asp	Pro	Lys	Glu	Leu	Trp	Val	Gln	Gln	Leu	Met	Gln	His	Leu
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Asp	Lys	Thr	Pro	Ser	Pro	Gln	Lys	Pro	Ala	Gln	Gly	Cys	Arg	Lys
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<211> 3554

<212> DNA

<213> Homosapiens

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<211> 2570

<212> DNA

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<211> 3824

<212> DNA

<213> Homosapiens

<400> 265

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Glu	Lys	Pro	Phe	His	Ser	Val	Pro	Phe	Leu	Met	Gly	Val	Asn	Asn
				335					340					345
His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp

350					355					360				
Thr Met Glu Gln	Met Ser Arg Glu Asp	Met Leu Ala Ile Ser	Thr											
	365													
Pro Val Leu Thr	Ser Leu Asp Val Pro	Pro Glu Met Met Pro	Thr											
	380													
Val Ile Asp Glu	Tyr Leu Gly Ser Asn	Ser Asp Ala Gln Ala	Lys											
	395													
Cys Gln Ala Phe	Gln Glu Phe Met Gly	Asp Val Phe Ile Asn Val												
	410													
Pro Thr Val Ser	Phe Ser Arg Tyr Leu	Arg Asp Ser Gly Ser	Pro											
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Val Phe Phe Tyr	Glu Phe Gln His Arg	Pro Ser Ser Phe Ala Lys												
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Ile Lys Pro Ala	Trp Val Lys Ala Asp	His Gly Ala Glu Gly Ala												
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Phe Val Phe Gly	Gly Pro Phe Leu Met	Asp Glu Ser Ser Arg Leu												
	470													
Ala Phe Pro Glu	Ala Thr Glu Glu Glu	Lys Gln Leu Ser Leu Thr												
	485													
Met Met Ala Gln	Trp Thr His Phe Ala	Arg Thr Gly Asp Pro Asn												
	500													
Ser Lys Ala Leu	Pro Pro Trp Pro Gln	Phe Asn Gln Ala Glu Gln												
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Tyr Leu Glu Ile	Asn Pro Val Pro Arg	Ala Gly Gln Lys Phe Arg												
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Glu Ala Trp Met	Gln Phe Trp Ser Glu	Thr Leu Pro Ser Lys Ile												
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Gln Gln Trp His	Gln Lys Gln Lys Asn	Arg Lys Ala Gln Glu Asp												
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 <211> 3721
 <212> DNA
 <213> Homosapiens

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<210> 268

<211> 888

<212> PRT

<213> Homosapiens

<400> 268

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Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr	35	40	45	
Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu	50	55	60	
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg	65	70	75	
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu	80	85	90	
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr	95	100	105	
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly	110	115	120	
Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu	125	130	135	
Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn	140	145	150	
Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly	155	160	165	
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His	170	175	180	
Ala	Asn	Val	Ala	Leu	Phe	Ser	Asp	Gly	Met	Leu	Phe	Thr	Ala	Thr	185	190	195	
Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu	200	205	210	
Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp	215	220	225	

Phe Lys Glu Pro Tyr	Phe Val His Ala Val	Glu Trp Gly Ser His
230	235	240
Val Tyr Phe Phe	Phe Arg Glu Ile Ala Met	Glu Phe Asn Tyr Leu
245	250	255
Glu Lys Val Val	Val Ser Arg Val Ala Arg	Val Cys Lys Asn Asp
260	265	270
Val Gly Gly Ser	Pro Arg Val Leu Glu Lys	Gln Trp Thr Ser Phe
275	280	285
Leu Lys Ala Arg	Leu Asn Cys Ser Val Pro	Gly Asp Ser His Phe
290	295	300
Tyr Phe Asn Val	Leu Gln Ala Val Thr Gly	Val Val Ser Leu Gly
305	310	315
Gly Arg Pro Val	Val Leu Ala Val Phe Ser	Thr Pro Ser Asn Ser
320	325	330
Ile Pro Gly Ser	Ala Val Cys Ala Phe Asp	Leu Thr Gln Val Ala
335	340	345
Ala Val Phe Glu	Gly Arg Phe Arg Glu Gln	Lys Ser Pro Glu Ser
350	355	360
Ile Trp Thr Pro	Val Pro Glu Asp Gln Val	Pro Arg Pro Arg Pro
365	370	375
Gly Cys Cys Ala	Ala Pro Gly Met Gln Tyr	Asn Ala Ser Ser Ala
380	385	390
Leu Pro Asp Asp	Ile Leu Asn Phe Val Lys	Thr His Pro Leu Met
395	400	405
Asp Glu Ala Val	Pro Ser Leu Gly His Ala	Pro Trp Ile Leu Arg
410	415	420
Thr Leu Met Arg	His Gln Leu Thr Arg Val	Ala Val Asp Val Gly
425	430	435
Ala Gly Pro Trp	Gly Asn Gln Thr Val Val	Phe Leu Gly Ser Glu
440	445	450
Ala Gly Thr Val	Leu Lys Phe Leu Val Arg	Pro Asn Ala Ser Thr
455	460	465
Ser Gly Thr Ser	Gly Leu Ser Val Phe Leu	Glu Glu Phe Glu Thr
470	475	480
Tyr Arg Pro Asp	Arg Cys Gly Arg Pro Gly	Gly Gly Glu Thr Gly
485	490	495
Gln Arg Leu Leu	Ser Leu Glu Leu Asp Ala	Ala Ser Gly Gly Leu
500	505	510
Leu Ala Ala Phe	Pro Arg Cys Val Val Arg	Val Pro Val Ala Arg
515	520	525
Cys Gln Gln Tyr	Ser Gly Cys Met Lys Asn	Cys Ile Gly Ser Gln
530	535	540

Asp	Pro	Tyr	Cys	Gly	Trp	Ala	Pro	Asp	Gly	Ser	Cys	Ile	Phe	Leu
				545					550					555
Ser	Pro	Gly	Thr	Arg	Ala	Ala	Phe	Glu	Gln	Asp	Val	Ser	Gly	Ala
				560					565					570
Ser	Thr	Ser	Gly	Leu	Gly	Asp	Cys	Thr	Gly	Leu	Leu	Arg	Ala	Ser
				575					580					585
Leu	Ser	Glu	Asp	Arg	Ala	Gly	Leu	Val	Ser	Val	Asn	Leu	Leu	Val
				590					595					600
Thr	Ser	Ser	Val	Ala	Ala	Phe	Val	Val	Gly	Ala	Val	Val	Ser	Gly
				605					610					615
Phe	Ser	Val	Gly	Trp	Phe	Val	Gly	Leu	Arg	Glu	Arg	Arg	Glu	Leu
				620					625					630
Ala	Arg	Arg	Lys	Asp	Lys	Glu	Ala	Ile	Leu	Ala	His	Gly	Ala	Gly
				635					640					645
Glu	Ala	Val	Leu	Ser	Val	Ser	Arg	Leu	Gly	Glu	Arg	Arg	Ala	Gln
				650					655					660
Gly	Pro	Gly	Gly	Arg	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ala	Gly	Val
				665					670					675
Pro	Pro	Glu	Ala	Leu	Leu	Ala	Pro	Leu	Met	Gln	Asn	Gly	Trp	Ala
				680					685					690
Lys	Ala	Thr	Leu	Leu	Gln	Gly	Gly	Pro	His	Asp	Leu	Asp	Ser	Gly
				695					700					705
Leu	Leu	Pro	Thr	Pro	Glu	Gln	Thr	Pro	Leu	Pro	Gln	Lys	Arg	Leu
				710					715					720
Pro	Thr	Pro	His	Pro	His	Pro	His	Ala	Leu	Gly	Pro	Arg	Ala	Trp
				725					730					735
Asp	His	Gly	His	Pro	Leu	Leu	Pro	Ala	Ser	Ala	Ser	Ser	Ser	Leu
				740					745					750
Leu	Leu	Leu	Ala	Pro	Ala	Arg	Ala	Pro	Glu	Gln	Pro	Pro	Ala	Pro
				755					760					765
Gly	Glu	Pro	Thr	Pro	Asp	Gly	Arg	Leu	Tyr	Ala	Ala	Arg	Pro	Gly
				770					775					780
Arg	Ala	Ser	His	Gly	Asp	Phe	Pro	Leu	Thr	Pro	His	Ala	Ser	Pro
				785					790					795
Asp	Arg	Arg	Arg	Val	Val	Ser	Ala	Pro	Thr	Gly	Pro	Leu	Asp	Pro
				800					805					810
Ala	Ser	Ala	Ala	Asp	Gly	Leu	Pro	Arg	Pro	Trp	Ser	Pro	Pro	Pro
				815					820					825
Thr	Gly	Ser	Leu	Arg	Arg	Pro	Leu	Gly	Pro	His	Ala	Pro	Pro	Ala
				830					835					840
Ala	Thr	Leu	Arg	Arg	Thr	His	Thr	Phe	Asn	Ser	Gly	Glu	Ala	Arg
				845					850					855

Pro Gly Asp Arg His Arg Gly Cys His Ala Arg Pro Gly Thr Asp
860 870

Leu Ala His Leu Leu Pro Tyr Gly Gly Ala Asp Arg Thr Ala Pro
875 880 885

Pro Val Pro

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<211> 457
<212> DNA
<213> Homosapiens

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gcaaaaa 457

<210> 270
<211> 80
<212> PRT
<213> Homosapiens

<400> 270
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20 25 30
Gly Glu Phe Gln Asp Pro Lys Val Tyr Cys Thr Arg Glu Ser Asn
35 40 45
Pro His Cys Gly Ser Asp Gly Gln Thr Tyr Gly Asn Lys Cys Ala
50 55 60
Phe Cys Lys Ala Ile Val Lys Ser Gly Gly Lys Ile Ser Leu Lys
65 70 75
His Pro Gly Lys Cys
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<211> 1177
<212> DNA
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<210> 272
<211> 111
<212> PRT
<213> Homosapiens

<400> 272
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Phe Arg Cys Arg Val Ser Val Ala Arg Glu His Leu Pro Ser Arg
35 40 45

Gly Ser Leu Leu Arg Gly Pro Arg Pro Arg Ile Pro Val Leu Val
 50 55 60
 Ser Cys Gln Pro Val Lys Gly His Gly Thr Leu Gly Glu Ser Pro
 65 70 75
 Met Pro Phe Lys Arg Val Phe Cys Gln Asp Gly Asn Val Arg Ser
 80 85 90
 Phe Cys Val Cys Ala Val His Phe Ser Ser His Gln Pro Pro Val
 95 100 105
 Ala Val Glu Cys Leu Lys
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<210> 273

<211> 2061

<212> DNA

<213> Homosapiens

<400> 273

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 gaagctacag agacagtggg attccagact cagatcactc aactcatga 2000
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<210> 274
 <211> 649
 <212> PRT
 <213> Homosapiens

<400> 274
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 35 40 45
 Asp Arg Phe Leu Thr Ser Ile Pro Thr Gly Ile Pro Glu Asp Ala
 50 55 60
 Thr Thr Leu Tyr Leu Gln Asn Asn Gln Ile Asn Asn Ala Gly Ile
 65 70 75

Pro Ser Asp Leu Lys Asn Leu Leu Lys Val Glu Arg Ile Tyr Leu	80	85	90
Tyr His Asn Ser Leu Asp Glu Phe Pro Thr Asn Leu Pro Lys Tyr	95	100	105
Val Lys Glu Leu His Leu Gln Glu Asn Asn Ile Arg Thr Ile Thr	110	115	120
Tyr Asp Ser Leu Ser Lys Ile Pro Tyr Leu Glu Glu Leu His Leu	125	130	135
Asp Asp Asn Ser Val Ser Ala Val Ser Ile Glu Glu Gly Ala Phe	140	145	150
Arg Asp Ser Asn Tyr Leu Arg Leu Leu Phe Leu Ser Arg Asn His	155	160	165
Leu Ser Thr Ile Pro Trp Gly Leu Pro Arg Thr Ile Glu Glu Leu	170	175	180
Arg Leu Asp Asp Asn Arg Ile Ser Thr Ile Ser Ser Pro Ser Leu	185	190	195
Gln Gly Leu Thr Ser Leu Lys Arg Leu Val Leu Asp Gly Asn Leu	200	205	210
Leu Asn Asn His Gly Leu Gly Asp Lys Val Phe Phe Asn Leu Val	215	220	225
Asn Leu Thr Glu Leu Ser Leu Val Arg Asn Ser Leu Thr Ala Ala	230	235	240
Pro Val Asn Leu Pro Gly Thr Asn Leu Lys Leu Tyr Leu Gln	245	250	255
Asp Asn His Ile Asn Arg Val Pro Pro Asn Ala Phe Ser Tyr Leu	260	265	270
Arg Gln Leu Tyr Arg Leu Asp Met Ser Asn Asn Asn Leu Ser Asn	275	280	285
Leu Pro Gln Gly Ile Phe Asp Asp Leu Asp Asn Ile Thr Gln Leu	290	295	300
Ile Leu Arg Asn Asn Pro Trp Tyr Cys Gly Cys Lys Met Lys Trp	305	310	315
Val Arg Asp Trp Leu Gln Ser Leu Pro Val Lys Val Asn Val Arg	320	325	330
Gly Leu Met Cys Gln Ala Pro Glu Lys Val Arg Gly Met Ala Ile	335	340	345
Lys Asp Leu Asn Ala Glu Leu Phe Asp Cys Lys Asp Ser Gly Ile	350	355	360
Val Ser Thr Ile Gln Ile Thr Thr Ala Ile Pro Asn Thr Val Tyr	365	370	375
Pro Ala Gln Gly Gln Trp Pro Ala Pro Val Thr Lys Gln Pro Asp	380	385	390

Ile Lys Asn Pro	Lys 395	Leu Thr Lys Asp	Gln 400	Gln Thr Thr Gly	Ser 405
Pro Ser Arg Lys	Thr 410	Ile Thr Ile Thr	Val 415	Lys Ser Val Thr	Ser 420
Asp Thr Ile His	Ile 425	Ser Trp Lys Leu	Ala 430	Leu Pro Met Thr	Ala 435
Leu Arg Leu Ser	Trp 440	Leu Lys Leu Gly	His 445	Ser Pro Ala Phe	Gly 450
Ser Ile Thr Glu	Thr 455	Ile Val Thr Gly	Glu 460	Arg Ser Glu Tyr	Leu 465
Val Thr Ala Leu	Glu 470	Pro Asp Ser Pro	Tyr 475	Lys Val Cys Met	Val 480
Pro Met Glu Thr	Ser 485	Asn Leu Tyr Leu	Phe 490	Asp Glu Thr Pro	Val 495
Cys Ile Glu Thr	Glu 500	Thr Ala Pro Leu	Arg 505	Met Tyr Asn Pro	Thr 510
Thr Thr Leu Asn	Arg 515	Glu Gln Glu Lys	Glu 520	Pro Tyr Lys Asn	Pro 525
Asn Leu Pro Leu	Ala 530	Ile Ala Ile Gly	Gly 535	Ala Val Ala Leu	Val 540
Thr Ile Ala Leu	Leu 545	Ala Leu Val Cys	Trp 550	Tyr Val His Arg	Asn 555
Gly Ser Leu Phe	Ser 560	Arg Asn Cys Ala	Lys 565	Ser Lys Gly Arg	Arg 570
Arg Lys Asp Asp	Tyr 575	Ala Glu Ala Gly	Thr 580	Lys Lys Asp Asn	Ser 585
Ile Leu Glu Ile	Arg 590	Glu Thr Ser Phe	Gln 595	Met Leu Pro Ile	Ser 600
Asn Glu Pro Ile	Ser 605	Lys Glu Glu Phe	Val 610	Ile His Thr Ile	Phe 615
Pro Pro Asn Gly	Met 620	Asn Leu Tyr Lys	Asn 625	Asn His Ser Glu	Ser 630
Ser Ser Asn Arg	Ser 635	Tyr Arg Asp Ser	Gly 640	Ile Pro Asp Ser	Asp 645
His Ser His Ser					

<210> 275
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 <213> Homosapiens

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gcgcgcggcc ggctccggcg tcttccagct gcagctgcag gagttcatca 150
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 <211> 685
 <212> PRT
 <213> Homosapiens

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 35 40 45
 Ser Gly Arg Pro Cys Glu Pro Gly Cys Arg Thr Phe Phe Arg Val
 50 55 60
 Cys Leu Lys His Phe Gln Ala Val Val Ser Pro Gly Pro Cys Thr
 65 70 75
 Phe Gly Thr Val Ser Thr Pro Val Leu Gly Thr Asn Ser Phe Ala
 80 85 90
 Val Arg Asp Asp Ser Ser Gly Gly Gly Arg Asn Pro Leu Gln Leu
 95 100 105
 Pro Phe Asn Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu
 110 115 120
 Ala Trp His Ala Pro Gly Asp Asp Leu Arg Pro Glu Ala Leu Pro
 125 130 135
 Pro Asp Ala Leu Ile Ser Lys Ile Ala Ile Gln Gly Ser Leu Ala
 140 145 150
 Val Gly Gln Asn Trp Leu Leu Asp Glu Gln Thr Ser Thr Leu Thr
 155 160 165
 Arg Leu Arg Tyr Ser Tyr Arg Val Ile Cys Ser Asp Asn Tyr Tyr
 170 175 180
 Gly Asp Asn Cys Ser Arg Leu Cys Lys Lys Arg Asn Asp His Phe

185					190					195				
Gly	His	Tyr	Val	Cys	Gln	Pro	Asp	Gly	Asn	Leu	Ser	Cys	Leu	Pro
				200					205					210
Gly	Trp	Thr	Gly	Glu	Tyr	Cys	Gln	Gln	Pro	Ile	Cys	Leu	Ser	Gly
				215					220					225
Cys	His	Glu	Gln	Asn	Gly	Tyr	Cys	Ser	Lys	Pro	Ala	Glu	Cys	Leu
				230					235					240
Cys	Arg	Pro	Gly	Trp	Gln	Gly	Arg	Leu	Cys	Asn	Glu	Cys	Ile	Pro
				245					250					255
His	Asn	Gly	Cys	Arg	His	Gly	Thr	Cys	Ser	Thr	Pro	Trp	Gln	Cys
				260					265					270
Thr	Cys	Asp	Glu	Gly	Trp	Gly	Gly	Leu	Phe	Cys	Asp	Gln	Asp	Leu
				275					280					285
Asn	Tyr	Cys	Thr	His	His	Ser	Pro	Cys	Lys	Asn	Gly	Ala	Thr	Cys
				290					295					300
Ser	Asn	Ser	Gly	Gln	Arg	Ser	Tyr	Thr	Cys	Thr	Cys	Arg	Pro	Gly
				305					310					315
Tyr	Thr	Gly	Val	Asp	Cys	Glu	Leu	Glu	Leu	Ser	Glu	Cys	Asp	Ser
				320					325					330
Asn	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Lys	Asp	Gln	Glu	Asp	Gly
				335					340					345
Tyr	His	Cys	Leu	Cys	Pro	Pro	Gly	Tyr	Tyr	Gly	Leu	His	Cys	Glu
				350					355					360
His	Ser	Thr	Leu	Ser	Cys	Ala	Asp	Ser	Pro	Cys	Phe	Asn	Gly	Gly
				365					370					375
Ser	Cys	Arg	Glu	Arg	Asn	Gln	Gly	Ala	Asn	Tyr	Ala	Cys	Glu	Cys
				380					385					390
Pro	Pro	Asn	Phe	Thr	Gly	Ser	Asn	Cys	Glu	Lys	Lys	Val	Asp	Arg
				395					400					405
Cys	Thr	Ser	Asn	Pro	Cys	Ala	Asn	Gly	Gly	Gln	Cys	Leu	Asn	Arg
				410					415					420
Gly	Pro	Ser	Arg	Met	Cys	Arg	Cys	Arg	Pro	Gly	Phe	Thr	Gly	Thr
				425					430					435
Tyr	Cys	Glu	Leu	His	Val	Ser	Asp	Cys	Ala	Arg	Asn	Pro	Cys	Ala
				440					445					450
His	Gly	Gly	Thr	Cys	His	Asp	Leu	Glu	Asn	Gly	Leu	Met	Cys	Thr
				455					460					465
Cys	Pro	Ala	Gly	Phe	Ser	Gly	Arg	Arg	Cys	Glu	Val	Arg	Thr	Ser
				470					475					480
Ile	Asp	Ala	Cys	Ala	Ser	Ser	Pro	Cys	Phe	Asn	Arg	Ala	Thr	Cys
				485					490					495
Tyr	Thr	Asp	Leu	Ser	Thr	Asp	Thr	Phe	Val	Cys	Asn	Cys	Pro	Tyr

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				515					520					525
Ser	Phe	Pro	Trp	Val	Ala	Val	Ser	Leu	Gly	Val	Gly	Leu	Ala	Val
				530					535					540
Leu	Leu	Val	Leu	Leu	Gly	Met	Val	Ala	Val	Ala	Val	Arg	Gln	Leu
				545					550					555
Arg	Leu	Arg	Arg	Pro	Asp	Asp	Gly	Ser	Arg	Glu	Ala	Met	Asn	Asn
				560					565					570
Leu	Ser	Asp	Phe	Gln	Lys	Asp	Asn	Leu	Ile	Pro	Ala	Ala	Gln	Leu
				575					580					585
Lys	Asn	Thr	Asn	Gln	Lys	Lys	Glu	Leu	Gly	Val	Asp	Cys	Gly	Leu
				590					595					600
Asp	Lys	Ser	Asn	Cys	Gly	Lys	Gln	Gln	Asn	His	Thr	Leu	Asp	Tyr
				605					610					615
Asn	Leu	Ala	Pro	Gly	Pro	Leu	Gly	Arg	Gly	Thr	Met	Pro	Gly	Lys
				620					625					630
Phe	Pro	His	Ser	Asp	Lys	Ser	Leu	Gly	Glu	Lys	Ala	Pro	Leu	Arg
				635					640					645
Leu	His	Ser	Glu	Lys	Pro	Glu	Cys	Arg	Ile	Ser	Ala	Ile	Cys	Ser
				650					655					660
Pro	Arg	Asp	Ser	Met	Tyr	Gln	Ser	Val	Cys	Leu	Ile	Ser	Glu	Glu
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Arg	Asn	Glu	Cys	Val	Ile	Ala	Thr	Glu	Val					
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<211> 1307

<212> DNA

<213> Homosapiens

<400> 277

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 cgccccgcgc cggagttttc ttctggtttc ttccaagatt cctggccttc 150
 cctcgacgga gccgggcccc gtgcgggggc gcagggcgcg ggagctccac 200
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<210> 278

<211> 254

<212> PRT

<213> Homosapiens

<400> 278

Met	Gly	Arg	Asp	Leu	Arg	Pro	Gly	Ser	Arg	Val	Leu	Leu	Leu	Leu	1	5	10	15
Leu	Leu	Leu	Leu	Leu	Val	Tyr	Leu	Thr	Gln	Pro	Gly	Asn	Gly	Asn	20	25	30	
Glu	Gly	Ser	Val	Thr	Gly	Ser	Cys	Tyr	Cys	Gly	Lys	Arg	Ile	Ser	35	40	45	
Ser	Asp	Ser	Pro	Pro	Ser	Val	Gln	Phe	Met	Asn	Arg	Leu	Arg	Lys	50	55	60	
His	Leu	Arg	Ala	Tyr	His	Arg	Cys	Leu	Tyr	Tyr	Thr	Arg	Phe	Gln	65	70	75	
Leu	Leu	Ser	Trp	Ser	Val	Cys	Gly	Gly	Asn	Lys	Asp	Pro	Trp	Val	80	85	90	
Gln	Glu	Leu	Met	Ser	Cys	Leu	Asp	Leu	Lys	Glu	Cys	Gly	His	Ala	95	100	105	
Tyr	Ser	Gly	Ile	Val	Ala	His	Gln	Lys	His	Leu	Leu	Pro	Thr	Ser	110	115	120	

Pro Pro Ile Ser Gln Ala Ser Glu Gly Ala Ser Ser Asp Ile His
125 130

Thr Pro Ala Gln Met Leu Leu Ser Thr Leu Gln Ser Thr Gln Arg
140 145 150

Pro Thr Leu Pro Val Gly Ser Leu Ser Ser Asp Lys Glu Leu Thr
155 160 165

Arg Pro Asn Glu Thr Thr Ile His Thr Ala Gly His Ser Leu Ala
170 175 180

Ala Gly Pro Glu Ala Gly Glu Asn Gln Lys Gln Pro Glu Lys Asn
185 190 195

Ala Gly Pro Thr Ala Arg Thr Ser Ala Thr Val Pro Val Leu Cys
200 205 210

Leu Leu Ala Ile Ile Phe Ile Leu Thr Ala Ala Leu Ser Tyr Val
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 <212> DNA
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 tgaagagatg attgaaaaag ccaaaagggga aactgcctat ctgccatgca 200
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 aatttacaac tgtcagatat tggcacatat cagtgcacaa tgaaaaaagc 450
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<210> 280
<211> 352
<212> PRT
<213> Homosapiens
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										25					30
Lys	Ala	Lys	Gly	Glu	35	Thr	Ala	Tyr	Leu	Pro	Cys	Lys	Phe	Thr	Leu
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Ser	Pro	Glu	Asp	Gln	50	Gly	Pro	Leu	Asp	Ile	Glu	Trp	Leu	Ile	Ser
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Pro	Ala	Asp	Asn	Gln	65	Lys	Val	Asp	Gln	Val	Ile	Ile	Leu	Tyr	Ser
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Gly	Asp	Lys	Ile	Tyr	80	Asp	Asp	Tyr	Tyr	Pro	Asp	Leu	Lys	Gly	Arg
										85					90
Val	His	Phe	Thr	Ser	95	Asn	Asp	Leu	Lys	Ser	Gly	Asp	Ala	Ser	Ile
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Asn	Val	Thr	Asn	Leu	110	Gln	Leu	Ser	Asp	Ile	Gly	Thr	Tyr	Gln	Cys
										115					120
Lys	Val	Lys	Lys	Ala	125	Pro	Gly	Val	Ala	Asn	Lys	Lys	Ile	His	Lys
										130					135

Val	Val	Leu	Val	Lys	Pro	Ser	Gly	Ala	Arg	Cys	Tyr	Val	Asp	Gly
				140					145					150
Ser	Glu	Glu	Ile	Gly	Ser	Asp	Phe	Lys	Ile	Lys	Cys	Glu	Pro	Lys
				155					160					165
Glu	Gly	Ser	Leu	Pro	Leu	Gln	Tyr	Glu	Trp	Gln	Lys	Leu	Ser	Asp
				170					175					180
Ser	Gln	Lys	Met	Pro	Thr	Ser	Trp	Leu	Ala	Glu	Met	Thr	Ser	Ser
				185					190					195
Val	Ile	Ser	Val	Lys	Asn	Ala	Ser	Ser	Glu	Tyr	Ser	Gly	Thr	Tyr
				200					205					210
Ser	Cys	Thr	Val	Arg	Asn	Arg	Val	Gly	Ser	Asp	Gln	Cys	Leu	Leu
				215					220					225
Arg	Leu	Asn	Val	Val	Pro	Pro	Ser	Asn	Lys	Ala	Gly	Leu	Ile	Ala
				230					235					240
Gly	Ala	Ile	Ile	Gly	Thr	Leu	Leu	Ala	Leu	Ala	Leu	Ile	Gly	Leu
				245					250					255
Ile	Ile	Phe	Cys	Cys	Arg	Lys	Lys	Arg	Arg	Glu	Glu	Lys	Tyr	Glu
				260					265					270
Lys	Glu	Val	His	His	Asp	Ile	Arg	Glu	Asp	Val	Pro	Pro	Pro	Lys
				275					280					285
Ser	Arg	Thr	Ser	Thr	Ala	Arg	Ser	Tyr	Ile	Gly	Ser	Asn	His	Ser
				290					295					300
Ser	Leu	Gly	Ser	Met	Ser	Pro	Ser	Asn	Met	Glu	Gly	Tyr	Ser	Lys
				305					310					315
Thr	Gln	Tyr	Asn	Gln	Val	Pro	Ser	Glu	Asp	Phe	Glu	Arg	Thr	Pro
				320					325					330
Gln	Ser	Pro	Thr	Leu	Pro	Pro	Ala	Lys	Phe	Lys	Tyr	Pro	Tyr	Lys
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<211> 1240

<212> DNA

<213> Homosapiens

<400> 281

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<210> 282

<211> 199

<212> PRT

<213> Homosapiens

<400> 282

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 35 40 45
 Lys Ala Gln Lys Val Trp Cys Arg Phe Leu Pro Glu Gly Cys Gln
 50 55 60
 Pro Leu Val Ser Ser Ala Val Asp Arg Arg Ala Pro Ala Gly Arg
 65 70 75
 Arg Thr Phe Leu Thr Asp Leu Gly Gly Gly Leu Leu Gln Val Glu
 80 85 90
 Met Val Thr Leu Gln Glu Glu Asp Ala Gly Glu Tyr Gly Cys Met

	95		100		105
Val Asp Gly Ala	Arg Gly Pro Gln Ile	Leu His Arg Val	Ser Leu		
	110		115		120
Asn Ile Leu Pro	Pro Glu Glu Glu Glu	Glu Thr His Lys	Ile Gly		
	125		130		135
Ser Leu Ala Glu	Asn Ala Phe Ser Asp	Pro Ala Gly Ser	Ala Asn		
	140		145		150
Pro Leu Glu Pro	Ser Gln Asp Glu Lys	Ser Ile Pro Leu	Ile Trp		
	155		160		165
Gly Ala Val Leu	Leu Val Gly Leu Leu	Val Ala Ala Val	Val Leu		
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Phe Ala Val Met	Ala Lys Arg Lys Gln	Glu Ser Leu Leu	Ser Gly		
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 <212> DNA
 <213> Homosapiens

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<210> 284
 <211> 99
 <212> PRT
 <213> Homosapiens

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Gly	His	Cys	Arg	Lys 35	Ile	Cys	Arg	Val	Asn 40	Glu	Val	Pro	Glu	Ala 45
Leu	Cys	Glu	Asn	Gly 50	Arg	Tyr	Cys	Cys	Leu 55	Asn	Ile	Lys	Glu	Leu 60
Glu	Ala	Cys	Lys	Lys 65	Ile	Thr	Lys	Pro	Pro 70	Arg	Pro	Lys	Pro	Ala 75
Thr	Leu	Ala	Leu	Thr 80	Leu	Gln	Asp	Tyr	Val 85	Thr	Ile	Ile	Glu	Asn 90
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<212> DNA
<213> Homosapiens
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<210> 286

<211> 176

<212> PRT

<213> Homosapiens

<400> 286

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				20					25					30	
Gly	Ser	Cys	Val	Ile	Ala	Thr	Asn	Leu	Gln	Glu	Ile	Arg	Asn	Gly	
				35					40					45	
Phe	Ser	Glu	Ile	Arg	Gly	Ser	Val	Gln	Ala	Lys	Asp	Gly	Asn	Ile	
				50					55					60	
Asp	Ile	Arg	Ile	Leu	Arg	Arg	Thr	Glu	Ser	Leu	Gln	Asp	Thr	Lys	
				65					70					75	
Pro	Ala	Asn	Arg	Cys	Cys	Leu	Leu	Arg	His	Leu	Leu	Arg	Leu	Tyr	
				80					85					90	
Leu	Asp	Arg	Val	Phe	Lys	Asn	Tyr	Gln	Thr	Pro	Asp	His	Tyr	Thr	
				95					100					105	
Leu	Arg	Lys	Ile	Ser	Ser	Leu	Ala	Asn	Ser	Phe	Leu	Thr	Ile	Lys	
				110					115					120	
Lys	Asp	Leu	Arg	Leu	Ser	His	Ala	His	Met	Thr	Cys	His	Cys	Gly	
				125					130					135	
Glu	Glu	Ala	Met	Lys	Lys	Tyr	Ser	Gln	Ile	Leu	Ser	His	Phe	Glu	
				140					145					150	
Lys	Leu	Glu	Pro	Gln	Ala	Ala	Val	Val	Lys	Ala	Leu	Gly	Glu	Leu	
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Asp	Ile	Leu	Leu	Gln	Trp	Met	Glu	Glu	Thr	Glu					
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 <222> 2020
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<210> 288

<211> 607

<212> PRT

<213> Homosapiens

<400> 288

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				20					25					30
Ala	Val	Pro	Thr	Ser	Leu	Glu	Leu	Gln	Arg	Gly	Thr	Asp	Gly	Gly
				35					40					45
Thr	Leu	Gln	Ser	Pro	Ser	Glu	Ala	Thr	Ala	Thr	Arg	Pro	Ala	Val
				50					55					60
Pro	Gly	Leu	Pro	Thr	Val	Val	Pro	Thr	Leu	Val	Thr	Pro	Ser	Ala
				65					70					75
Pro	Gly	Asn	Arg	Thr	Val	Asp	Leu	Phe	Pro	Val	Leu	Pro	Ile	Cys
				80					85					90
Val	Cys	Asp	Leu	Thr	Pro	Gly	Ala	Cys	Asp	Ile	Asn	Cys	Cys	Cys
				95					100					105
Asp	Arg	Asp	Cys	Tyr	Leu	Leu	His	Pro	Arg	Thr	Val	Phe	Ser	Phe
				110					115					120
Cys	Leu	Pro	Gly	Ser	Val	Arg	Ser	Ser	Ser	Trp	Val	Cys	Val	Asp
				125					130					135

Asn Ser Val Ile	Phe Arg Ser Asn Ser	Pro Phe Pro Ser Arg	Val
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Phe Met Asp Ser	Asn Gly Ile Arg Gln	Phe Cys Val His Val	Asn
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Asn Ser Asn Leu	Asn Tyr Phe Gln Lys	Leu Gln Lys Val Asn	Ala
170	175	180	
Thr Asn Phe Gln	Ala Leu Ala Ala Glu	Phe Gly Gly Glu Ser	Phe
185	190	195	
Thr Ser Thr Phe	Gln Thr Gln Ser Pro	Pro Ser Phe Tyr Arg	Ala
200	205	210	
Gly Asp Pro Ile	Leu Thr Tyr Phe Pro	Lys Trp Ser Val Ile	Ser
215	220	225	
Leu Leu Arg Gln	Pro Ala Gly Val Gly	Ala Gly Gly Leu Cys	Ala
230	235	240	
Glu Ser Asn Pro	Ala Gly Phe Leu Glu	Ser Lys Ser Thr Thr	Cys
245	250	255	
Thr Arg Phe Phe	Lys Asn Leu Ala Ser	Ser Cys Thr Leu Asp	Ser
260	265	270	
Ala Leu Asn Ala	Ala Ser Tyr Tyr Asn	Phe Thr Val Leu Lys	Val
275	280	285	
Pro Arg Ser Met	Thr Asp Pro Gln Asn	Met Glu Phe Gln Val	Pro
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Val Ile Leu Thr	Ser Gln Ala Asn Ala	Pro Leu Leu Ala Gly	Asn
305	310	315	
Thr Cys Gln Asn	Val Val Ser Gln Val	Thr Tyr Glu Ile Glu	Thr
320	325	330	
Asn Gly Thr Phe	Gly Ile Gln Lys Val	Ser Val Ser Leu Gly	Gln
335	340	345	
Thr Asn Leu Thr	Val Glu Pro Gly Ala	Ser Leu Gln Gln His	Phe
350	355	360	
Ile Leu Arg Phe	Arg Ala Phe Gln Gln	Ser Thr Ala Ala Ser	Leu
365	370	375	
Thr Ser Pro Arg	Ser Gly Asn Pro Gly	Tyr Ile Val Gly Lys	Pro
380	385	390	
Leu Leu Ala Leu	Thr Asp Asp Ile Ser	Tyr Ser Met Thr Leu	Leu
395	400	405	
Gln Ser Gln Gly	Asn Gly Ser Cys Ser	Val Lys Arg His Glu	Val
410	415	420	
Gln Phe Gly Val	Asn Ala Ile Ser Gly	Cys Lys Leu Arg Leu	Lys
425	430	435	
Lys Ala Asp Cys	Ser His Leu Gln Gln	Glu Ile Tyr Gln Thr	Leu
440	445	450	

His Gly Arg Pro Arg	Pro Glu Tyr Val	Ala Ile Phe Gly Asn Ala
455	460	465
Asp Pro Ala Gln Lys	Gly Gly Trp Thr Arg	Ile Leu Asn Arg His
470	475	480
Cys Ser Ile Ser Ala	Ile Asn Cys Thr Ser	Cys Cys Leu Ile Pro
485	490	495
Val Ser Leu Glu Ile	Gln Val Leu Trp Ala	Tyr Val Gly Leu Leu
500	505	510
Ser Asn Pro Gln Ala	His Val Ser Gly Val	Arg Phe Leu Tyr Gln
515	520	525
Cys Gln Ser Ile Gln	Asp Ser Gln Gln Val	Thr Glu Val Ser Leu
530	535	540
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545	550	555
Pro Arg Gly Gln Pro	Lys Met Asp Trp Lys	Trp Pro Phe Asp Phe
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<211> 2870

<212> DNA

<213> Homosapiens

<400> 289

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<210> 290

<211> 417

<212> PRT

<213> Homosapiens

<400> 290

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Leu	Leu	Val	Leu	Gly	Tyr	Leu	Ser	Cys	Lys	Val	Thr	Cys	Glu	
			20					25					30	
Ser	Gly	Asp	Cys	Arg	Gln	Gln	Glu	Phe	Arg	Asp	Arg	Ser	Gly	Asn
			35					40						45
Cys	Val	Pro	Cys	Asn	Gln	Cys	Gly	Pro	Gly	Met	Glu	Leu	Ser	Lys
			50					55						60
Glu	Cys	Gly	Phe	Gly	Tyr	Gly	Glu	Asp	Ala	Gln	Cys	Val	Thr	Cys
			65					70						75
Arg	Leu	His	Arg	Phe	Lys	Glu	Asp	Trp	Gly	Phe	Gln	Lys	Cys	Lys
			80					85						90
Pro	Cys	Leu	Asp	Cys	Ala	Val	Val	Asn	Arg	Phe	Gln	Lys	Ala	Asn
			95					100						105
Cys	Ser	Ala	Thr	Ser	Asp	Ala	Ile	Cys	Gly	Asp	Cys	Leu	Pro	Gly
			110					115						120
Phe	Tyr	Arg	Lys	Thr	Lys	Leu	Val	Gly	Phe	Gln	Asp	Met	Glu	Cys
			125					130						135
Val	Pro	Cys	Gly	Asp	Pro	Pro	Pro	Pro	Tyr	Glu	Pro	His	Cys	Ala
			140					145						150

Ser Lys Val Asn	Leu Val Lys Ile Ala	Ser Thr Ala Ser Ser Pro	155	160	165
Arg Asp Thr Ala	Leu Ala Ala Val Ile	Cys Ser Ala Leu Ala Thr	170	175	180
Val Leu Leu Ala	Leu Leu Ile Leu Cys	Val Ile Tyr Cys Lys Arg	185	190	195
Gln Phe Met Glu	Lys Lys Pro Ser Trp	Ser Leu Arg Ser Gln Asp	200	205	210
Ile Gln Tyr Asn	Gly Ser Glu Leu Ser Cys	Phe Asp Arg Pro Gln	215	220	225
Leu His Glu Tyr	Ala His Arg Ala Cys Cys	Gln Cys Arg Arg Asp	230	235	240
Ser Val Gln Thr	Cys Gly Pro Val Arg	Leu Leu Pro Ser Met Cys	245	250	255
Cys Glu Glu Ala	Cys Ser Pro Asn Pro	Ala Thr Leu Gly Cys Gly	260	265	270
Val His Ser Ala	Ala Ser Leu Gln Ala	Arg Asn Ala Gly Pro Ala	275	280	285
Gly Glu Met Val	Pro Thr Phe Phe Gly	Ser Leu Thr Gln Ser Ile	290	295	300
Cys Gly Glu Phe	Ser Asp Ala Trp Pro	Leu Met Gln Asn Pro Met	305	310	315
Gly Gly Asp Asn	Ile Ser Phe Cys Asp	Tyr Pro Glu Leu Thr	320	325	330
Gly Glu Asp Ile	His Ser Leu Asn Pro	Glu Leu Glu Ser Ser Thr	335	340	345
Ser Leu Asp Ser	Asn Ser Ser Gln Asp	Leu Val Gly Gly Ala Val	350	355	360
Pro Val Gln Ser	His Ser Glu Asn Phe	Thr Ala Ala Thr Asp Leu	365	370	375
Ser Arg Tyr Asn	Asn Thr Leu Val Glu	Ser Ala Ser Thr Gln Asp	380	385	390
Ala Leu Thr Met	Arg Ser Gln Leu Asp	Gln Glu Ser Gly Ala Val	395	400	405
Ile His Pro Ala	Thr Gln Thr Ser Leu	Gln Glu Ala	410	415	

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 <211> 2395
 <212> DNA
 <213> Homosapiens

<400> 291
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<210> 292
 <211> 310
 <212> PRT
 <213> Homosapiens

<400> 292
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 35 40 45
 Ala Pro Glu Pro Ser Ala Gly Ala Ser Ser Asn Trp Thr Thr Leu
 50 55 60
 Pro Pro Pro Leu Phe Ser Lys Val Val Ile Val Leu Ile Asp Ala
 65 70 75
 Leu Arg Asp Asp Phe Val Phe Gly Ser Lys Gly Val Lys Phe Met
 80 85 90
 Pro Tyr Thr Thr Tyr Leu Val Glu Lys Gly Ala Ser His Ser Phe
 95 100 105
 Val Ala Glu Ala Lys Pro Pro Thr Val Thr Met Pro Arg Ile Lys
 110 115 120
 Ala Leu Met Thr Gly Ser Leu Pro Gly Phe Val Asp Val Ile Arg
 125 130 135
 Asn Leu Asn Ser Pro Ala Leu Leu Glu Asp Ser Val Ile Arg Gln
 140 145 150

Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr	
				155					160					165	
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr	
				170					175					180	
Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val	
				185					190					195	
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile	
				200					205					210	
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser	
				215					220					225	
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp	
				230					235					240	
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg	
				245					250					255	
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly	
				260					265					270	
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val	
				275					280					285	
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro	
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Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln						
				305					310						

<210> 293

<211> 918

<212> DNA

<213> Homosapiens

<400> 293

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 aaagtaagaa ttgcaaaa 918

<210> 294
 <211> 251
 <212> PRT
 <213> Homosapiens

<400> 294
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 35 40 45
 Leu Pro Ser Ile Ser Cys Pro His Glu Cys Phe Glu Ala Ile Leu
 50 55 60
 Ser Leu Asp Thr Gly Tyr Arg Ala Pro Val Thr Leu Val Arg Lys
 65 70 75
 Gly Cys Trp Thr Gly Pro Pro Ala Gly Gln Thr Gln Ser Asn Pro
 80 85 90
 Asp Ala Leu Pro Pro Asp Tyr Ser Val Val Arg Gly Cys Thr Thr
 95 100 105
 Asp Lys Cys Asn Ala His Leu Met Thr His Asp Ala Leu Pro Asn
 110 115 120
 Leu Ser Gln Ala Pro Asp Pro Pro Thr Leu Ser Gly Ala Glu Cys
 125 130 135
 Tyr Ala Cys Ile Gly Val His Gln Asp Asp Cys Ala Ile Gly Arg
 140 145 150
 Ser Arg Arg Val Gln Cys His Gln Asp Gln Thr Ala Cys Phe Gln
 155 160 165
 Gly Ser Gly Arg Met Thr Val Gly Asn Phe Ser Val Pro Val Tyr
 170 175 180
 Ile Arg Thr Cys His Arg Pro Ser Cys Thr Thr Glu Gly Thr Thr
 185 190 195
 Ser Pro Trp Thr Ala Ile Asp Leu Gln Gly Ser Cys Cys Glu Gly
 200 205 210

Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala
			215						220					225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu
			230						235					240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala				
			245						250					

<210> 295
 <211> 846
 <212> DNA
 <213> Homosapiens

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<210> 296
 <211> 189
 <212> PRT
 <213> Homosapiens

<400> 296
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 Pro Pro Val Gln Glu Asn Phe Asp Val Asn Lys Tyr Leu Gly Arg
 35 40 45

Trp Tyr Glu Ile Glu Lys Ile Pro Thr Thr Phe Glu Asn Gly Arg
 50 55 60
 Cys Ile Gln Ala Asn Tyr Ser Leu Met Glu Asn Gly Lys Ile Lys
 65 70 75
 Val Leu Asn Gln Glu Leu Arg Ala Asp Gly Thr Val Asn Gln Ile
 80 85 90
 Glu Gly Glu Ala Thr Pro Val Asn Leu Thr Glu Pro Ala Lys Leu
 95 100 105
 Glu Val Lys Phe Ser Trp Phe Met Pro Ser Ala Pro Tyr Trp Ile
 110 115 120
 Leu Ala Thr Asp Tyr Glu Asn Tyr Ala Leu Val Tyr Ser Cys Thr
 125 130 135
 Cys Ile Ile Gln Leu Phe His Val Asp Phe Ala Trp Ile Leu Ala
 140 145 150
 Arg Asn Pro Asn Leu Pro Pro Glu Thr Val Asp Ser Leu Lys Asn
 155 160 165
 Ile Leu Thr Ser Asn Asn Ile Asp Val Lys Lys Met Thr Val Thr
 170 175 180
 Asp Gln Val Asn Cys Pro Lys Leu Ser
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<210> 297

<211> 1088

<212> DNA

<213> Homosapiens

<400> 297

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 ccggagcctc cgtgccagc gacatgttca aggtaattca gaggtccgtg 200
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<210> 298

<211> 198

<212> PRT

<213> Homosapiens

<400> 298

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Pro	Lys	Asn	Ser	Val	Lys	Val	Asp	Glu	Leu	Ser	Leu	Tyr	Ser	Val	35	40	45	
Pro	Glu	Gly	Gln	Ser	Lys	Tyr	Val	Glu	Glu	Ala	Arg	Ser	Gln	Leu	50	55	60	
Glu	Glu	Ser	Ile	Ser	Gln	Leu	Arg	His	Tyr	Cys	Glu	Pro	Tyr	Thr	65	70	75	
Thr	Trp	Cys	Gln	Glu	Thr	Tyr	Ser	Gln	Thr	Lys	Pro	Lys	Met	Gln	80	85	90	
Ser	Leu	Val	Gln	Trp	Gly	Leu	Asp	Ser	Tyr	Asp	Tyr	Leu	Gln	Asn	95	100	105	
Ala	Pro	Pro	Gly	Phe	Phe	Pro	Arg	Leu	Gly	Val	Ile	Gly	Phe	Ala	110	115	120	
Gly	Leu	Ile	Gly	Leu	Leu	Leu	Ala	Arg	Gly	Ser	Lys	Ile	Lys	Lys	125	130	135	
Leu	Val	Tyr	Pro	Pro	Gly	Phe	Met	Gly	Leu	Ala	Ala	Ser	Leu	Tyr	140	145	150	
Tyr	Pro	Gln	Gln	Ala	Ile	Val	Phe	Ala	Gln	Val	Ser	Gly	Glu	Arg	155	160	165	
Leu	Tyr	Asp	Trp	Gly	Leu	Arg	Gly	Tyr	Ile	Val	Ile	Glu	Asp	Leu	170	175	180	
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Gly Thr Lys

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 <211> 1328
 <212> DNA
 <213> Homosapiens

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 aaccaactgg tgtgtaaaaa taattttaaa ttccctttac tgaagggtat 1200
 ttcccatctt tgtggggaaa agaagccaaa tttattactt tgtgttgggg 1250
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<210> 300
 <211> 190

<212> PRT

<213> Homosapiens

<400> 300

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          20          25          30
Ala Val Leu Leu Gln Ala Ala Glu Ala Ala Pro Gly Leu Gly Pro
          35          40          45
Pro Asp Pro Arg Pro Arg Thr Leu Pro Pro Leu Pro Pro Gly Pro
          50          55          60
Thr Pro Ala Gln Gln Pro Gly Arg Gly Leu Ala Glu Ala Ala Gly
          65          70          75
Pro Arg Gly Ser Glu Gly Gly Asn Gly Ser Asn Pro Val Ala Gly
          80          85          90
Leu Glu Thr Asp Asp His Gly Gly Lys Ala Gly Glu Gly Ser Val
          95          100          105
Gly Gly Gly Leu Ala Val Ser Pro Asn Pro Gly Asp Lys Pro Met
          110          115          120
Thr Gln Arg Ala Leu Thr Val Leu Met Val Val Ser Gly Ala Val
          125          130          135
Leu Val Tyr Phe Val Val Arg Thr Val Arg Met Arg Arg Arg Asn
          140          145          150
Arg Lys Thr Arg Arg Tyr Gly Val Leu Asp Thr Asn Ile Glu Asn
          155          160          165
Met Glu Leu Thr Pro Leu Glu Gln Asp Asp Glu Asp Asp Asp Asn
          170          175          180
Thr Leu Phe Asp Ala Asn His Pro Arg Arg
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<210> 301

<211> 1470

<212> DNA

<213> Homosapiens

<400> 301

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ctttgtcatg ggacctgtgc ggttgggaat attgcttttc ctttttttgg 150
cogtgacaga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
gaacgcttgc ccagcaaatg cgaagtgtgt aagctgctga gcacagagct 250
acaggcgcaa ctgagtcgca ccggtcgatc tcgagaggtg ctggagctgg 300
ggcagggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcggt 350

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tcagagacaa ggctggaaga ggccttagag aatttatgtg agcggatcct 400
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 acccaaaagt cagcagtgcc actggagctg tgggctttgg ggaagtcact 1200
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 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350
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 <211> 248
 <212> PRT
 <213> Homosapiens

<400> 302
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 20 25 30
 Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser
 35 40 45
 Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu
 50 55 60

Val	Leu	Glu	Leu	Gly	Gln	Val	Leu	Asp	Thr	Gly	Lys	Arg	Lys	Arg	
				65					70					75	
His	Val	Pro	Tyr	Ser	Val	Ser	Glu	Thr	Arg	Leu	Glu	Glu	Ala	Leu	
				80					85					90	
Glu	Asn	Leu	Cys	Glu	Arg	Ile	Leu	Asp	Tyr	Ser	Val	His	Ala	Glu	
				95					100					105	
Arg	Lys	Gly	Ser	Leu	Arg	Tyr	Ala	Lys	Gly	Gln	Ser	Gln	Thr	Met	
				110					115					120	
Ala	Thr	Leu	Lys	Gly	Leu	Val	Gln	Lys	Gly	Val	Lys	Val	Asp	Leu	
				125					130					135	
Gly	Ile	Pro	Leu	Glu	Leu	Trp	Asp	Glu	Pro	Ser	Val	Glu	Val	Thr	
				140					145					150	
Tyr	Leu	Lys	Lys	Gln	Cys	Glu	Thr	Met	Leu	Glu	Glu	Phe	Glu	Asp	
				155					160					165	
Ile	Val	Gly	Asp	Trp	Tyr	Phe	His	His	Gln	Glu	Gln	Pro	Leu	Gln	
				170					175					180	
Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala	
				185					190					195	
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu	
				200					205					210	
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu	
				215					220					225	
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His	
				230					235					240	
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu								
				245											

<210> 303
 <211> 633
 <212> DNA
 <213> Homosapiens

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 gtgacacat ataccagggc ttgcgcgagt gtctcatccg cttgggggac 200
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 aataacttgc acactctgtg cggtgccccg gtgcatgttc gggagcgcgg 400
 cacaggctcc gaaaccaacc aggagacgct gcgggctaca gcgcctgcac 450

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 tacctccagc cctgctctgg cggtggttgt ccaggctctg cagagcgagc 600
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<210> 304
 <211> 165
 <212> PRT
 <213> Homosapiens

<400> 304
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 20 25 30
 Pro Leu Ala Ala Ala Ala Ala Gly Pro Asn Arg Cys Asp Thr Ile
 35 40 45
 Tyr Gln Gly Phe Ala Glu Cys Leu Ile Arg Leu Gly Asp Ser Met
 50 55 60
 Gly Arg Gly Gly Glu Leu Glu Thr Ile Cys Arg Ser Trp Asn Asp
 65 70 75
 Phe His Ala Cys Ala Ser Gln Val Leu Ser Gly Cys Pro Glu Glu
 80 85 90
 Ala Ala Ala Val Trp Glu Ser Leu Gln Gln Glu Ala Arg Gln Ala
 95 100 105
 Pro Arg Pro Asn Asn Leu His Thr Leu Cys Gly Ala Pro Val His
 110 115 120
 Val Arg Glu Arg Gly Thr Gly Ser Glu Thr Asn Gln Glu Thr Leu
 125 130 135
 Arg Ala Thr Ala Pro Ala Leu Pro Met Ala Pro Ala Pro Pro Leu
 140 145 150
 Leu Ala Ala Ala Leu Ala Leu Ala Tyr Leu Leu Arg Pro Leu Ala
 155 160 165

<210> 305
 <211> 890
 <212> DNA
 <213> Homosapiens

<400> 305
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 tggagacgag gatgagaaca gcccggtgtc ccatgaggcc ctcttggacg 200
 aggacacccct cttttgccag ggccttgaag ttttctacc agagtgggg 250

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<210> 306

<211> 223

<212> PRT

<213> Homosapiens

<400> 306

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Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys
			20						25					30
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly
			35						40					45
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val
			50						55					60
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met
			65						70					75
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr
			80						85					90
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro
			95						100					105
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly
			110						115					120
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala
			125						130					135
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr
			140						145					150
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu

	155		160		165
Pro Lys Glu Asn	Lys Thr Arg Gly Ser Trp	Lys Met Asp Arg Phe			
	170		175		180
Leu Asn Arg Phe	His Leu Gly Glu Pro	Glu Ala Ser Thr Gln Phe			
	185		190		195
Met Thr Gln Asn	Tyr Gln Asp Ser Pro	Thr Leu Gln Ala Pro Arg			
	200		205		210
Gly Arg Ala Ser	Glu Pro Lys His Lys	Thr Arg Gln Arg			
	215		220		

<210> 307
 <211> 924
 <212> DNA
 <213> Homosapiens

<400> 307
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 cgggtctcagg agatgtctga tttccacaga catgcaccat atagaagaga 150
 gtttccaaga aatcaaaaaga gccatccaag ctaaggacac ctccccaaat 200
 gtcactatcc tgtccacatt ggagactctg cagatcatta agcccttaga 250
 tgtgtgtctgc gtgaccaaga acctcctggc gttctacgtg gacagggtgt 300
 tcaaggatca tcaggagcca aacccccaaa tcttgagaaa aatcagcagc 350
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 ctggggagagc tcgacgtctt tctagcctgg attaataaga atcatgaagt 550
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 agatggggaa ggccccttgc agctgaaagt cccactggct ggcctcaggc 700
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 taaactctat ctgctgaaag ggccctgagg ccatcctggg agtaaaaggg 800
 tgccttccca tctaatttat tgtaaagtca tatagtccat gtctgtgatg 850
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 ataaaattcca tattttacct atga 924

<210> 308
 <211> 177
 <212> PRT
 <213> Homosapiens

<400> 308

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				20					25					30
Ser	Thr	Asp	Met	His	His	Ile	Glu	Glu	Ser	Phe	Gln	Glu	Ile	Lys
				35					40					45
Arg	Ala	Ile	Gln	Ala	Lys	Asp	Thr	Phe	Pro	Asn	Val	Thr	Ile	Leu
				50					55					60
Ser	Thr	Leu	Glu	Thr	Leu	Gln	Ile	Ile	Lys	Pro	Leu	Asp	Val	Cys
				65					70					75
Cys	Val	Thr	Lys	Asn	Leu	Leu	Ala	Phe	Tyr	Val	Asp	Arg	Val	Phe
				80					85					90
Lys	Asp	His	Gln	Glu	Pro	Asn	Pro	Lys	Ile	Leu	Arg	Lys	Ile	Ser
				95					100					105
Ser	Ile	Ala	Asn	Ser	Phe	Leu	Tyr	Met	Gln	Lys	Thr	Leu	Arg	Gln
				110					115					120
Cys	Gln	Glu	Gln	Arg	Gln	Cys	His	Cys	Arg	Gln	Glu	Ala	Thr	Asn
				125					130					135
Ala	Thr	Arg	Val	Ile	His	Asp	Asn	Tyr	Asp	Gln	Leu	Glu	Val	His
				140					145					150
Ala	Ala	Ala	Ile	Lys	Ser	Leu	Gly	Glu	Leu	Asp	Val	Phe	Leu	Ala
				155					160					165
Trp	Ile	Asn	Lys	Asn	His	Glu	Val	Met	Phe	Ser	Ala			
				170					175					

<210> 309

<211> 1321

<212> DNA

<213> Homosapiens

<400> 309

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tcactgttgc tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200
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 ttgtgttaag ttaaatcatt tttgtcctaa ttgtaatgtg taatcttaaa 1250
 gttaaaataa ctttgtgtat ttatataata ataaagctaa aactgatata 1300
 aaataaagaa agagtaaact g 1321

<210> 310
 <211> 134
 <212> PRT
 <213> Homosapiens

<400> 310
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 20 25 30
 Ala Leu Glu Gln Gly Arg Gly Asp Pro Ile Tyr Leu Gly Ile Gln
 35 40 45
 Asn Pro Glu Met Cys Leu Tyr Cys Glu Lys Val Gly Glu Gln Pro
 50 55 60
 Thr Leu Gln Leu Lys Glu Gln Lys Ile Met Asp Leu Tyr Gly Gln
 65 70 75
 Pro Glu Pro Val Lys Pro Phe Leu Phe Tyr Arg Ala Lys Thr Gly
 80 85 90
 Arg Thr Ser Thr Leu Glu Ser Val Ala Phe Pro Asp Trp Phe Ile
 95 100 105
 Ala Ser Ser Lys Arg Asp Gln Pro Ile Ile Leu Thr Ser Glu Leu
 110 115 120

Gly Lys Ser Tyr Asn Thr Ala Phe Glu Leu Asn Ile Asn Asp
 125 130

<210> 311
 <211> 999
 <212> DNA
 <213> Homosapiens

<400> 311
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<210> 312
 <211> 136
 <212> PRT
 <213> Homosapiens

<400> 312
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 20 25 30
 Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
 35 40 45

Gln	Val	Ser	Glu	Pro	Ser	Glu	Pro	Cys	Val	Arg	Tyr	Leu	Pro	Arg
				50					55					60
Leu	Tyr	Leu	Asp	Ile	His	Asn	Tyr	Cys	Val	Leu	Asp	Lys	Leu	Arg
				65					70					75
Asp	Phe	Val	Ala	Ser	Pro	Pro	Cys	Trp	Lys	Val	Ala	Gln	Val	Asp
				80					85					90
Ser	Leu	Lys	Asp	Lys	Ala	Arg	Lys	Leu	Tyr	Thr	Ile	Met	Asn	Ser
				95					100					105
Phe	Cys	Arg	Arg	Asp	Leu	Val	Phe	Leu	Leu	Asp	Asp	Cys	Asn	Ala
				110					115					120
Leu	Glu	Tyr	Pro	Ile	Pro	Val	Thr	Thr	Val	Leu	Pro	Asp	Arg	Gln
				125					130					135

Arg

<210> 313
 <211> 1162
 <212> DNA
 <213> Homosapiens

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 ttgtggaagt tgaagatata tccgaaacca gtaccattat tagaggacga 400
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 aattaaaatc acattcaagt ccgatgacta ctttgtggct aaacctggat 500
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<210> 314
 <211> 364
 <212> PRT
 <213> Homosapiens

<400> 314
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 Lys Ala Leu Arg Asn Ala Asn Leu Arg Arg Asp Asp Leu Tyr Arg
 35 40 45
 Arg Asp Glu Thr Ile Gln Val Lys Gly Asn Gly Tyr Val Gln Ser
 50 55 60
 Pro Arg Phe Pro Asn Ser Tyr Pro Arg Asn Leu Leu Leu Thr Trp
 65 70 75
 Arg Leu His Ser Gln Glu Asn Thr Arg Ile Gln Leu Val Phe Asp
 80 85 90
 Asn Gln Phe Gly Leu Glu Glu Ala Glu Asn Asp Ile Cys Arg Tyr
 95 100 105
 Asp Phe Val Glu Val Glu Asp Ile Ser Glu Thr Ser Thr Ile Ile
 110 115 120
 Arg Gly Arg Trp Cys Gly His Lys Glu Val Pro Pro Arg Ile Lys
 125 130 135
 Ser Arg Thr Asn Gln Ile Lys Ile Thr Phe Lys Ser Asp Asp Tyr
 140 145 150
 Phe Val Ala Lys Pro Gly Phe Lys Ile Tyr Tyr Ser Leu Leu Glu
 155 160 165
 Asp Phe Gln Pro Ala Ala Ala Ser Glu Thr Asn Trp Glu Ser Val
 170 175 180
 Thr Ser Ser Ile Ser Gly Val Ser Tyr Asn Ser Pro Ser Val Thr
 185 190 195
 Asp Pro Thr Leu Ile Ala Asp Ala Leu Asp Lys Lys Ile Ala Glu
 200 205 210
 Phe Asp Thr Val Glu Asp Leu Leu Lys Tyr Phe Asn Pro Glu Ser
 215 220 225

Trp Gln Glu Asp Leu Glu Asn Met Tyr Leu Asp Thr Pro Arg Tyr
 230 235
 Arg Gly Arg Ser Tyr His Asp Arg Lys Ser Lys Val Asp Leu Asp
 245 250 255
 Arg Leu Asn Asp Asp Ala Lys Arg Tyr Ser Cys Thr Pro Arg Asn
 260 265 270
 Tyr Ser Val Asn Ile Arg Glu Glu Leu Lys Leu Ala Asn Val Val
 275 280 285
 Phe Phe Pro Arg Cys Leu Leu Val Gln Arg Cys Gly Gly Asn Cys
 290 295 300
 Gly Cys Gly Thr Val Asn Trp Arg Ser Cys Thr Cys Asn Ser Gly
 305 310 315
 Lys Thr Val Lys Lys Tyr His Glu Val Leu Gln Phe Glu Pro Gly
 320 325 330
 His Ile Lys Arg Arg Gly Arg Ala Lys Thr Met Ala Leu Val Asp
 335 340 345
 Ile Gln Leu Asp His His Glu Arg Cys Asp Cys Ile Cys Ser Ser
 350 355 360
 Arg Pro Pro Arg

<210> 315
 <211> 2598
 <212> DNA
 <213> Homosapiens

<400> 315
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 ggagggtcgc atgcagggaa ggtcattaaa ggtgaagaga tcagcgtgggt 200
 cccaatcgg tggtcgatg ccagcctgtc ccccgctatc ctgggtgtcc 250
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 aactagagc cagtgaacat catggagctc tatcttggtg ccaaggaatc 350
 caagagcttc accttctacc ggcgggacat ggggctcacc tccagcttcg 400
 agtcggtcgc ctaccgggc tggttctctgt gcacggtgcc tgaagccgat 450
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gccacttcca agattagggt ataaaagaca ctgcagcttc tacttgagcc 2350
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 gggggaagct agctgccatg ctatgagcag gcctataaag agacttacgt 2450
 ggtaaaaaat gaagtctcct gccacagcc acattagtga acctagaagc 2500
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 ggtctaactt gttatgcagc aatagataaa taatatgcag agaaagag 2598

<210> 316
 <211> 155
 <212> PRT
 <213> Homosapiens

<400> 316
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 Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly
 20 25 30
 Leu His Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val
 35 40 45
 Pro Asn Arg Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly
 50 55 60
 Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu
 65 70 75
 Pro Thr Leu Thr Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu
 80 85 90
 Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met
 95 100 105
 Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp Phe
 110 115 120
 Leu Cys Thr Val Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln
 125 130 135
 Leu Pro Glu Asn Gly Gly Trp Asn Ala Pro Ile Thr Asp Phe Tyr
 140 145 150
 Phe Gln Gln Cys Asp
 155

<210> 317
 <211> 663
 <212> DNA
 <213> Homosapiens

<400> 317
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cggaaggcc ccccgctgt cctggcgctc cccgcgggcc acctgcccgg 200
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<210> 318
 <211> 220
 <212> PRT
 <213> Homosapiens

<400> 318
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 35 40 45
 Arg Ser Pro Ala Pro Arg Glu Gly Pro Pro Val Leu Ala Ser
 50 55 60
 Pro Ala Gly His Leu Pro Gly Gly Arg Thr Ala Arg Trp Cys Ser
 65 70 75
 Gly Arg Ala Arg Arg Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro
 80 85 90
 Pro Pro Pro Ala Pro Pro Ser Ala Leu Pro Arg Gly Gly Arg Ala
 95 100 105
 Ala Arg Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala
 110 115 120
 Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu
 125 130 135
 Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys
 140 145 150
 Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu
 155 160 165
 Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser
 170 175 180

Arg	Pro	Val	Ser	Gln	Pro	Cys	Cys	Arg	Pro	Thr	Arg	Tyr	Glu	Ala
				185					190					195
Val	Ser	Phe	Met	Asp	Val	Asn	Ser	Thr	Trp	Arg	Thr	Val	Asp	Arg
				200					205					210
Leu	Ser	Ala	Thr	Ala	Cys	Gly	Cys	Leu	Gly					
				215					220					

<210> 319
 <211> 1049
 <212> DNA
 <213> Homosapiens

<400> 319
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 ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
 gctttgggaa ttccaaagta ctgagtggag agagggtgtt caggagccgt 300
 agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcct 350
 gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
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 gaccttggtc tcaagctcc cacatcctgg attagtgagt ctgaggttct 700
 ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
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<210> 320
 <211> 194
 <212> PRT
 <213> Homosapiens

<400> 320

Met	Ser	Ala	Leu	Trp	Leu	Leu	Leu	Gly	Leu	Leu	Ala	Leu	Met	Asp
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Leu	Ser	Glu	Ser	Ser	Asn	Trp	Gly	Cys	Tyr	Gly	Asn	Ile	Gln	Ser
				20					25					30
Leu	Asp	Thr	Pro	Gly	Ala	Ser	Cys	Gly	Ile	Gly	Arg	Arg	His	Gly
				35					40					45
Leu	Asn	Tyr	Cys	Gly	Val	Arg	Ala	Ser	Glu	Arg	Leu	Ala	Glu	Ile
				50					55					60
Asp	Met	Pro	Tyr	Leu	Leu	Lys	Tyr	Gln	Pro	Met	Met	Gln	Thr	Ile
				65					70					75
Gly	Gln	Lys	Tyr	Cys	Met	Asp	Pro	Ala	Val	Ile	Ala	Gly	Val	Leu
				80					85					90
Ser	Arg	Lys	Ser	Pro	Gly	Asp	Lys	Ile	Leu	Val	Asn	Met	Gly	Asp
				95					100					105
Arg	Thr	Ser	Met	Val	Gln	Asp	Pro	Gly	Ser	Gln	Ala	Pro	Thr	Ser
				110					115					120
Trp	Ile	Ser	Glu	Ser	Gln	Val	Ser	Gln	Thr	Thr	Glu	Val	Leu	Thr
				125					130					135
Thr	Arg	Ile	Lys	Glu	Ile	Gln	Arg	Arg	Phe	Pro	Thr	Trp	Thr	Pro
				140					145					150
Asp	Gln	Tyr	Leu	Arg	Gly	Gly	Leu	Cys	Ala	Tyr	Ser	Gly	Gly	Ala
				155					160					165
Gly	Tyr	Val	Arg	Ser	Ser	Gln	Asp	Leu	Ser	Cys	Asp	Phe	Cys	Asn
				170					175					180
Asp	Val	Leu	Ala	Arg	Ala	Lys	Tyr	Leu	Lys	Arg	His	Gly	Phe	
				185					190					

<210> 321
 <211> 1020
 <212> DNA
 <213> Homosapiens

<400> 321
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<210> 322

<211> 458

<212> PRT

<213> Homosapiens

<400> 322

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Lys Ala Ala Leu	Ser Tyr Val	Ser Glu Ile	Gly Lys Ala Pro Leu
	35	40	45
Gln Arg Ala Leu	Gln Val Thr	Val Pro His	Phe Leu Asp Trp Ser
	50	55	60
Gly Glu Ala Leu	Gln Pro Thr	Arg Ile Arg	Ile Leu Asn Val His
	65	70	75
Val Pro Arg Leu	His Leu Lys	Phe Ile Ala	Gly Phe Gly Val Arg
	80	85	90
Leu Leu Ala Ala	Ala Asn Phe	Thr Phe Lys	Val Phe Arg Ala Pro
	95	100	105
Glu Pro Leu Glu	Leu Thr Leu	Pro Val Glu	Leu Leu Ala Asp Thr
	110	115	120
Arg Val Thr Gln	Ser Ser Ile	Arg Thr Pro	Val Val Ser Ile Ser
	125	130	135
Ala Cys Ser Leu	Phe Ser Gly	His Ala Asn	Glu Phe Asp Gly Ser
	140	145	150
Asn Ser Thr Ser	His Ala Leu	Leu Val Leu	Val Gln Lys His Ile
	155	160	165
Lys Ala Val Leu	Ser Asn Lys	Leu Cys Leu	Ser Ile Ser Asn Leu
	170	175	180
Val Gln Gly Val	Asn Val His	Leu Gly Thr	Leu Ile Gly Leu Asn
	185	190	195
Pro Val Gly Pro	Glu Ser Gln	Ile Arg Tyr	Ser Met Val Ser Val
	200	205	210
Pro Thr Val Thr	Ser Asp Tyr	Ile Ser Leu	Glu Val Asn Ala Val
	215	220	225
Leu Phe Leu Leu	Gly Asn Pro	Ile Ile Leu	Pro Thr Asp Ala Thr
	230	235	240
Pro Phe Val Leu	Pro Arg His	Val Gly Thr	Glu Gly Ser Met Ala
	245	250	255
Thr Val Gly Leu	Ser Gln Gln	Leu Phe Asp	Ser Ala Leu Leu Leu
	260	265	270
Leu Gln Lys Ala	Gly Ala Leu	Asn Leu Asp	Ile Thr Gly Gln Leu
	275	280	285
Arg Ser Asp Asp	Asn Leu Leu	Asn Thr Ser	Ala Leu Gly Arg Leu
	290	295	300
Ile Pro Glu Val	Ala Arg Gln	Phe Pro Glu	Pro Met Pro Val Val
	305	310	315
Leu Lys Val Arg	Leu Gly Ala	Thr Pro Val	Ala Met Leu His Thr

	320	325	330
Asn Asn Ala Thr	Leu Arg Leu Gln Pro	Phe Val Glu Val Leu Ala	
	335	340	345
Thr Ala Ser Asn	Ser Ala Phe Gln Ser	Leu Phe Ser Leu Asp Val	
	350	355	360
Val Val Asn Leu	Arg Leu Gln Leu Ser	Val Ser Lys Val Lys Leu	
	365	370	375
Gln Gly Thr Thr	Ser Val Leu Gly Asp	Val Gln Leu Thr Val Ala	
	380	385	390
Ser Ser Asn Val	Gly Phe Ile Asp Thr	Asp Gln Val Arg Thr Leu	
	395	400	405
Met Gly Thr Val	Phe Glu Lys Pro Leu	Leu Asp His Leu Asn Ala	
	410	415	420
Leu Leu Ala Met	Gly Ile Ala Leu Pro	Gly Val Val Asn Leu His	
	425	430	435
Tyr Val Ala Pro	Glu Ile Phe Val Tyr	Glu Gly Tyr Val Val Ile	
	440	445	450
Ser Ser Gly Leu	Phe Tyr Gln Ser		
	455		

<210> 323

<211> 899

<212> DNA

<213> Homosapiens

<400> 323

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ggctctaga agggctcccc actttgcttc ctatactctg ctgtcccccta 700

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<210> 324

<211> 125

<212> PRT

<213> Homosapiens

<400> 324

Met	Lys	Ala	Leu	Met	Leu	Leu	Thr	Leu	Ser	Val	Leu	Leu	Cys	Trp
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Val	Ser	Ala	Asp	Ile	Arg	Cys	His	Ser	Cys	Tyr	Lys	Val	Pro	Val
			20						25				30	
Leu	Gly	Cys	Val	Asp	Arg	Gln	Ser	Cys	Arg	Leu	Glu	Pro	Gly	Gln
			35						40				45	
Gln	Cys	Leu	Thr	Thr	His	Ala	Tyr	Leu	Gly	Lys	Met	Trp	Val	Phe
			50						55				60	
Ser	Asn	Leu	Arg	Cys	Gly	Thr	Pro	Glu	Glu	Pro	Cys	Gln	Glu	Ala
			65						70				75	
Phe	Asn	Gln	Thr	Asn	Arg	Lys	Leu	Gly	Leu	Thr	Tyr	Asn	Thr	Thr
			80						85				90	
Cys	Cys	Asn	Lys	Asp	Asn	Cys	Asn	Ser	Ala	Gly	Pro	Arg	Pro	Thr
			95						100				105	
Pro	Ala	Leu	Gly	Leu	Val	Phe	Leu	Thr	Ser	Leu	Ala	Gly	Leu	Gly
			110						115				120	
Leu	Trp	Leu	Leu	His										
			125											

<210> 325

<211> 1977

<212> DNA

<213> Homosapiens

<400> 325

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 tagctgcga gcgtcgcgcg cgctaccgca ccaggttgc gcccgtaggc 150
 gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200
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 gcaggctgga tcccatccca cagttgaaat gtgttgagg cacagctggt 400

tgtgattctt ataccccaaa agtcatacag tgcagaaca aaggctggga 450
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 aatttgga aaactgtggtg agctgtgaag gctatgagtc ctcgaagac 550
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<210> 326
 <211> 339
 <212> PRT
 <213> Homosapiens

<400> 326

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			20						25				30	
Trp	Asn	Asp	Pro	Asp	Arg	Met	Leu	Leu	Arg	Asp	Val	Lys	Ala	Leu
				35					40				45	
Thr	Leu	His	Tyr	Asp	Arg	Tyr	Thr	Thr	Ser	Arg	Arg	Leu	Asp	Pro
				50					55				60	
Ile	Pro	Gln	Leu	Lys	Cys	Val	Gly	Gly	Thr	Ala	Gly	Cys	Asp	Ser
				65					70				75	
Tyr	Thr	Pro	Lys	Val	Ile	Gln	Cys	Gln	Asn	Lys	Gly	Trp	Asp	Gly
				80					85				90	
Tyr	Asp	Val	Gln	Trp	Glu	Cys	Lys	Thr	Asp	Leu	Asp	Ile	Ala	Tyr
				95					100				105	
Lys	Phe	Gly	Lys	Thr	Val	Val	Ser	Cys	Glu	Gly	Tyr	Glu	Ser	Ser
				110					115				120	
Glu	Asp	Gln	Tyr	Val	Leu	Arg	Gly	Ser	Cys	Gly	Leu	Glu	Tyr	Asn
				125					130				135	
Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly
				140					145				150	
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp
				155					160				165	
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val
				170					175				180	
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser
				185					190				195	
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe
				200					205				210	
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro
				215					220				225	
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His
				230					235				240	
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly
				245					250				255	
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly
				260					265				270	
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro
				275					280				285	

Phe Ser Asp Ser Trp Tyr Tyr Pro Ser Tyr Pro Pro Ser Tyr Pro
290 295 300

Gly Thr Trp Asn Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly
305 310 315

Ser Tyr Ser Val Cys Ser Asn Ser Asp Thr Lys Thr Arg Thr Ala
320 325 330

Ser Gly Tyr Gly Gly Thr Arg Arg Arg
335

<210> 327

<211> 840

<212> DNA

<213> Homosapiens

<400> 327

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ttcccaggag ctgcagctgc tggccctgga accacacttt gagaaccact 150
gcttttagacc aaacacacaaa ggaagatgca gccacctctc ttacatgtc 200
acaacgctca ggggtccatga gtacctcagg ctgtccagct gagctccacc 250
tgcagcagcc gagattcccg actcgtccca ccattggggg ctaggagtga 300
agcgtgtcac catgggtcagc tcattggccag ccaggaaaag ctctctgctg 350
tgcgtctgtg cagttcttgt tcttccctgg aggactcttg gatcgctgtg 400
gatcttggcc aggagaccag gtgcctgggt ccttctcttg aaggggacaa 450
gttacacacc ccagcccat tttccacca acttctacat gccttgggag 500
aaccttctac atgttggtg ccccttccc ctatttcagc agtgccagct 550
cctgcttata aaactgaggc ctgctcccca taccttccct gtgcaagtgc 600
cagccgttat tccagcagc ccaatgttgt tgaggccaga tggattcctg 650
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aagaggtctt aaactaatgc gcataagaaa attgttctca ttgtaaacat 750
acccctgtcc ttactgtatc taggtggaag cccagcttca tgtgctaggg 800
ggcatgataa tgataataaa ggaattgtat ctaggactaa 840

<210> 328

<211> 120

<212> PRT

<213> Homosapiens

<400> 328

Met Val Ser Ser Trp Pro Ala Arg Lys Ala Ser Leu Leu Cys Val
1 5 10 15

Cys Ala Val Leu Val Leu Pro Trp Arg Thr Leu Gly Ser Pro Val
20 25 30

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Ile Leu Ala Arg Arg Pro Gly Ala Trp Val Pro Ser Trp Lys Gly
      35      40
Thr Ser Tyr Thr Pro Gln Pro His Phe Pro Thr Asn Phe Tyr Met
      50      55      60
Pro Trp Glu Asn Leu Leu His Val Gly Cys Pro Leu Pro Leu Phe
      65      70      75
Gln Gln Cys Pro Val Leu Leu Ile Asn Leu Arg Pro Ala Pro His
      80      85      90
Thr Phe Pro Val Gln Val Pro Ala Val Ile Pro Gly Ser Pro Met
      95     100     105
Leu Leu Arg Pro Asp Gly Phe Leu Glu Ala Ala Gly Pro Trp Met
      110     115     120

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<210> 329

<211> 771

<212> DNA

<213> Homosapiens

<400> 329

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tcctctgcac catggctctc tgcaaccagg tcctctctgc accacttget 150
gtgacacgc cgaccgcctg ctgcttcagc tacacctccc gacagattcc 200
acagaatttc atagctgact actttgagac gaggcagcag tgetccaagc 250
ccagtgtcat ctctctaacc aagagaggcc ggcaggtctg tgetgacccc 300
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ggagcaggag cctgagcctt gggaaacatgc gtgtgacctc tacagctacc 450
tcttctatgg actgggtatt gccaaacagc cacactgtgg gaetcttctt 500
aacttaaatt ttaatttatt tatactattt agtttttata atttattttt 550
gatttcacag tgtgtttgtg attgtttgct ctgagagttc ccctgtcccc 600
ctcccccttc cctcacagtg tgtctgtgta caaccgagtg gctgtcatcg 650
gcctgtgtag gcagtcattg caccaaagcc accagactga caaatgtgta 700
tcaaatgctt ttgttcaggg ctgtgatcgg cctggggaaa taataaagat 750
gttcttttaa acggtaaaaa a 771

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<210> 330

<211> 93

<212> PRT

<213> Homosapiens

<400> 330

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Met Gln Val Ser Thr Ala Ala Leu Ala Val Leu Leu Cys Thr Met

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1	5	10	15
Ala Leu Cys Asn Gln Val Leu Ser Ala Pro Leu Ala Ala Asp Thr	20	25	30
Pro Thr Ala Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln	35	40	45
Asn Phe Ile Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys	50	55	60
Pro Ser Val Ile Phe Leu Thr Lys Arg Gly Arg Gln Val Cys Ala	65	70	75
Asp Pro Ser Glu Glu Trp Val Gln Lys Tyr Val Ser Asp Leu Glu	80	85	90

Leu Ser Ala

<210> 331
 <211> 1557
 <212> DNA
 <213> Homosapiens

<400> 331
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 ttctgtggtg gtctctgcca tggacagaca aacattcttg tgtacataac 150
 aatctgtctc gtaatcggcg cgttttcagt ctctgtgtg aagggcctgg 200
 gcattgctat caaggagctg ttgcaggga agcctgtgct gcggcatccc 250
 ctggcttgga ttctgtgct gagcctcatc gtctgtgtga gcacacagat 300
 taattaccta aatagggccc tggatatatt caacacttcc attgtgactc 350
 caatatatta tgtattcttt acaacatcag ttttaacttg ttcagctatt 400
 ctttttaagg agtggcaaga tatgcctgtt gacgatgtca ttggtacttt 450
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gaatgcacta atgacagttt taagtctatg aaaatgcttt attttttcat 1000
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 ctgaccatgt aaggcttttt tattttaaaa aaacagagtt atcccaatac 1100
 attatctctg gatttacctt acctacaaaa gtggctctctg tttgtttgat 1150
 gatgattggt tttatttttg aaatatttat taagggaaaa ctaagttact 1200
 gaatgaagga acctctttct taaaaaacia aaaaaagggc agaatacacc 1250
 ccaaggaacg attttctcagg ttgagatgat caccgtgaat ccggcttcct 1300
 ctgagcattc gatggcctta gcacctcatc aagccagcac atcctgcctg 1350
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 tgaaatg 1557

<210> 332
 <211> 219
 <212> PRT
 <213> Homosapiens

<400> 332
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 20 25 30
 Arg His Gly Gln Thr Asn Ile Leu Val Tyr Ile Thr Ile Cys Ser
 35 40 45
 Val Ile Gly Ala Phe Ser Val Ser Cys Val Lys Gly Leu Gly Ile
 50 55 60
 Ala Ile Lys Glu Leu Phe Ala Gly Lys Pro Val Leu Arg His Pro
 65 70 75
 Leu Ala Trp Ile Leu Leu Leu Ser Leu Ile Val Cys Val Ser Thr
 80 85 90
 Gln Ile Asn Tyr Leu Asn Arg Ala Leu Asp Ile Phe Asn Thr Ser
 95 100 105
 Ile Val Thr Pro Ile Tyr Tyr Val Phe Phe Thr Thr Ser Val Leu
 110 115 120
 Thr Cys Ser Ala Ile Leu Phe Lys Glu Trp Gln Asp Met Pro Val
 125 130 135
 Asp Asp Val Ile Gly Thr Leu Ser Gly Phe Phe Thr Ile Ile Val
 140 145 150
 Gly Ile Phe Leu Leu His Ala Phe Lys Asp Val Ser Phe Ser Leu

	155		160		165
Ala Ser Leu Pro Val Ser Phe Arg Lys Asp Glu Lys Ala Met Asn					
	170		175		180
Gly Asn Leu Ser Asn Met Tyr Glu Val Leu Asn Asn Asn Glu Glu					
	185		190		195
Ser Leu Thr Cys Gly Ile Glu Gln His Thr Gly Glu Asn Val Ser					
	200		205		210
Arg Arg Asn Gly Asn Leu Thr Ala Phe					
	215				

<210> 333

<211> 1081

<212> DNA

<213> Homosapiens

<400> 333

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gtgtacagat ctctcaaga aacatcaagg g 1081

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<210> 334
 <211> 223
 <212> PRT
 <213> Homosapiens

<400> 334
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 20 25 30
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 35 40 45
 Ala Leu Leu Thr Gly Gly Gly Glu Met Leu Leu Asn Val Ala Leu
 50 55 60
 Val Ala Leu Val Leu Leu Gly Ala Tyr Arg Leu Trp Val Arg Trp
 65 70 75
 Gly Arg Arg Gly Leu Gly Ala Gly Ala Gly Ala Gly Glu Glu Ser
 80 85 90
 Pro Ala Thr Ser Leu Pro Arg Met Lys Lys Arg Asp Phe Ser Leu
 95 100 105
 Glu Gln Leu Arg Gln Tyr Asp Gly Ser Arg Asn Pro Arg Ile Leu
 110 115 120
 Leu Ala Val Asn Gly Lys Val Phe Asp Val Thr Lys Gly Ser Lys
 125 130 135
 Phe Tyr Gly Pro Ala Gly Pro Tyr Gly Ile Phe Ala Gly Arg Asp
 140 145 150
 Ala Ser Arg Gly Leu Ala Thr Phe Cys Leu Asp Lys Asp Ala Leu
 155 160 165
 Arg Asp Glu Tyr Asp Asp Leu Ser Asp Leu Asn Ala Val Gln Met
 170 175 180
 Glu Ser Val Arg Glu Trp Glu Met Gln Phe Lys Glu Lys Tyr Asp
 185 190 195
 Tyr Val Gly Arg Leu Leu Lys Pro Gly Glu Glu Pro Ser Glu Tyr
 200 205 210
 Thr Asp Glu Glu Asp Thr Lys Asp His Asn Lys Gln Asp
 215 220

<210> 335
 <211> 2814
 <212> DNA
 <213> Homosapiens

<400> 335
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tctttatggt tttccatggg aattggtgat atgtgcagct gttgttggat 200
 tttttgctgt tctctttttt ttgtggagaa gttttagatc ggttaggagt 250
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 atgcagaaca agttctaaat gataaagaaa gtcacatcaa gactctgact 850
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 atttactgtg gttgtggaca aatgtgaaag taactttatg cttaaataaa 2700
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 aaaaaaaaaa aaaa 2814

<210> 336
 <211> 776
 <212> PRT
 <213> Homosapiens

<400> 336
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 20 25 30
 Leu Glu Glu Leu Arg Arg Val Val Ala Ala Leu Pro Glu Gly Met
 35 40 45
 Arg Pro Asp Ser Asn Leu Tyr Gly Phe Pro Trp Glu Leu Val Ile
 50 55 60
 Cys Ala Ala Val Val Gly Phe Phe Ala Val Leu Phe Phe Leu Trp

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<212> DNA

<213> Homosapiens

<400> 337

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<211> 288

<212> PRT

<213> Homosapiens

<400> 338

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Ala	Thr	Asp	Ala	Trp	Gly	Ile	Lys	Val	Glu	Arg	Val	Glu	Ile	Lys	185	190	195	
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<211> 611
<212> PRT
<213> Homosapiens

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<400> 340

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				260					265					270
Asp	Ser	Arg	Ile	Gly	Ser	Gly	Arg	Arg	Ala	Phe	Gly	Ser	Gly	Tyr
				275					280					285
Arg	Arg	Asp	Asp	Asp	Tyr	Arg	Gly	Gly	Gly	Asp	Arg	Tyr	Glu	Asp
				290					295					300
Arg	Tyr	Asp	Arg	Arg	Asp	Asp	Arg	Ser	Trp	Ser	Ser	Arg	Asp	Asp
				305					310					315

Tyr	Ser	Arg	Asp	Asp	Tyr	Arg	Arg	Asp	Asp	Arg	Gly	Pro	Pro	Gln	
			320						325					330	
Arg	Pro	Lys	Leu	Asn	Leu	Lys	Pro	Arg	Ser	Thr	Pro	Glu	Glu	Asp	
			335						340					345	
Asp	Ser	Ser	Ala	Ser	Thr	Ser	Gln	Ser	Thr	Arg	Ala	Ala	Ser	Ile	
			350						355					360	
Phe	Gly	Gly	Ala	Lys	Pro	Val	Asp	Thr	Ala	Ala	Arg	Glu	Arg	Glu	
			365						370					375	
Val	Glu	Glu	Arg	Leu	Gln	Lys	Glu	Gln	Glu	Lys	Leu	Gln	Arg	Gln	
			380						385					390	
Trp	Asn	Glu	Pro	Lys	Leu	Glu	Arg	Arg	Pro	Arg	Glu	Arg	His	Pro	
			395						400					405	
Ser	Trp	Arg	Ser	Glu	Glu	Thr	Gln	Glu	Arg	Glu	Arg	Ser	Arg	Thr	
			410						415					420	
Gly	Ser	Glu	Ser	Ser	Gln	Thr	Gly	Thr	Ser	Thr	Thr	Ser	Ser	Arg	
			425						430					435	
Asn	Ala	Arg	Arg	Arg	Glu	Ser	Glu	Lys	Ser	Leu	Glu	Asn	Glu	Thr	
			440						445					450	
Leu	Asn	Lys	Glu	Glu	Asp	Cys	His	Ser	Pro	Thr	Ser	Lys	Pro	Pro	
			455						460					465	
Lys	Pro	Asp	Gln	Pro	Leu	Lys	Val	Met	Pro	Ala	Pro	Pro	Pro	Lys	
			470						475					480	
Glu	Asn	Ala	Trp	Val	Lys	Arg	Ser	Ser	Asn	Pro	Pro	Ala	Arg	Ser	
			485						490					495	
Gln	Ser	Ser	Asp	Thr	Glu	Gln	Gln	Ser	Pro	Thr	Ser	Gly	Gly	Gly	
			500						505					510	
Lys	Val	Ala	Pro	Ala	Gln	Pro	Ser	Glu	Glu	Gly	Pro	Gly	Arg	Lys	
			515						520					525	
Asp	Glu	Asn	Lys	Val	Asp	Gly	Met	Asn	Ala	Pro	Lys	Gly	Gln	Thr	
			530						535					540	
Gly	Asn	Ser	Ser	Arg	Gly	Pro	Gly	Asp	Gly	Gly	Asn	Arg	Asp	His	
			545						550					555	
Trp	Lys	Glu	Ser	Asp	Arg	Lys	Asp	Gly	Lys	Lys	Asp	Gln	Asp	Ser	
			560						565					570	
Arg	Ser	Ala	Pro	Glu	Pro	Lys	Lys	Pro	Glu	Glu	Asn	Pro	Ala	Ser	
			575						580					585	
Lys	Phe	Ser	Ser	Ala	Ser	Lys	Tyr	Ala	Ala	Leu	Ser	Val	Asp	Gly	
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 <211> 997
 <212> DNA

<213> Homosapiens

<400> 341

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<210> 342

<211> 156

<212> PRT

<213> Homosapiens

<400> 342

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 20 25 30
 Lys Gly Met Thr Ser Ser Gln Trp Phe Lys Ile Gln His Met Gln
 35 40 45
 Pro Ser Pro Gln Ala Cys Asn Ser Ala Met Lys Asn Ile Asn Lys
 50 55 60
 His Thr Lys Arg Cys Lys Asp Leu Asn Thr Phe Leu His Glu Pro
 65 70 75

Phe Ser Ser Val Ala Ala Thr Cys Gln Thr Pro Lys Ile Ala Cys
 80 85 90
 Lys Asn Gly Asp Lys Asn Cys His Gln Ser His Gly Pro Val Ser
 95 100 105
 Leu Thr Met Cys Lys Leu Thr Ser Gly Lys Tyr Pro Asn Cys Arg
 110 115 120
 Tyr Lys Glu Lys Arg Gln Asn Lys Ser Tyr Val Val Ala Cys Lys
 125 130 135
 Pro Pro Gln Lys Lys Asp Ser Gln Gln Phe His Leu Val Pro Val
 140 145 150
 His Leu Asp Arg Val Leu
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<210> 343

<211> 2265

<212> DNA

<213> Homosapiens

<400> 343

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 cgggtcaatg ccactataag caaggatggg agacctacat taagtgggtg 200
 tgccgagggg tgcgctggga tacatgcaag atcctcattg aaaccagagg 250
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 ttgctgaga acctgata tccgtgtttt taaatttttt tttttctagc 1100
 aaagttgggt tttaatgact tatgttcata ggaacctct ctgattccac 1150
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<210> 344
 <211> 201
 <212> PRT
 <213> Homosapiens

<400> 344
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 Phe Ser Ile Gln Gly Pro Glu Ser Val Arg Ala Pro Glu Gln Gly
 20 25 30

Ser Leu Thr Val Gln Cys His Tyr Lys Gln Gly Trp Glu Thr Tyr
 35 40 45
 Ile Lys Trp Trp Cys Arg Gly Val Arg Trp Asp Thr Cys Lys Ile
 50 55 60
 Leu Ile Glu Thr Arg Gly Ser Glu Gln Gly Glu Lys Ser Asp Arg
 65 70 75
 Val Ser Ile Lys Asp Asn Gln Lys Asp Arg Thr Phe Thr Val Thr
 80 85 90
 Met Glu Gly Leu Arg Arg Asp Asp Ala Asp Val Tyr Trp Cys Gly
 95 100 105
 Ile Glu Arg Arg Gly Pro Asp Leu Gly Thr Gln Val Lys Val Ile
 110 115 120
 Val Asp Pro Glu Gly Ala Ala Ser Thr Thr Ala Ser Ser Pro Thr
 125 130 135
 Asn Ser Asn Met Ala Val Phe Ile Gly Ser His Lys Arg Asn His
 140 145 150
 Tyr Met Leu Leu Val Phe Val Lys Val Pro Ile Leu Leu Ile Leu
 155 160 165
 Val Thr Ala Ile Leu Trp Leu Lys Gly Ser Gln Arg Val Pro Glu
 170 175 180
 Glu Pro Gly Glu Gln Pro Ile Tyr Met Asn Phe Ser Glu Pro Leu
 185 190 195
 Thr Lys Asp Met Ala Thr
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<210> 345
 <211> 3501
 <212> DNA
 <213> Homosapiens

<400> 345
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 a 3501

<210> 346

<211> 171

<212> PRT

<213> Homosapiens

<400> 346

Met Glu Pro Gly Pro Ala Leu Ala Trp Leu Leu Leu Leu Ser Leu

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Lys Asp Ile Ile	Tyr Leu His Pro Ser Thr	Pro Tyr Pro Gly	35
Gly Phe Lys Cys	Phe Thr Cys Glu Lys Ala	Ala Asp Asn Tyr Glu	50
Cys Asn Arg Trp	Ala Pro Asp Ile Tyr Cys	Pro Arg Glu Thr Arg	65
Tyr Cys Tyr Thr	Gln His Thr Met Glu Val	Thr Gly Asn Ser Ile	80
Ser Val Thr Lys	Arg Cys Val Pro Leu Glu	Glu Cys Leu Ser Thr	95
Gly Cys Arg Asp	Ser Glu His Glu Gly His	Lys Val Cys Thr Ser	110
Cys Cys Glu Gly	Asn Ile Cys Asn Leu Pro	Leu Pro Arg Asn Glu	125
Thr Asp Ala Thr	Phe Ala Thr Thr Ser Pro	Ile Asn Gln Thr Asn	140
Gly His Pro Arg	Cys Met Ser Val Ile Val	Ser Cys Leu Trp Leu	155
Trp Leu Gly Leu	Met Leu		170

<210> 347
 <211> 2016
 <212> DNA
 <213> Homosapiens

<400> 347
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 gccacccttc tgtggatgct actgctggtg ccagagctgg gggccgcccg 200
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<210> 348
 <211> 567
 <212> PRT

<213> Homosapiens

<400> 348

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			20						25					30
Ser	Phe	Tyr	Tyr	Gly	Thr	Phe	Pro	Leu	Gly	Phe	Ser	Trp	Gly	Val
			35						40					45
Gly	Ser	Ser	Ala	Tyr	Gln	Thr	Glu	Gly	Ala	Trp	Asp	Gln	Asp	Gly
			50						55					60
Lys	Gly	Pro	Ser	Ile	Trp	Asp	Val	Phe	Thr	His	Ser	Gly	Lys	Gly
			65						70					75
Lys	Val	Leu	Gly	Asn	Glu	Thr	Ala	Asp	Val	Ala	Cys	Asp	Gly	Tyr
			80						85					90
Tyr	Lys	Val	Gln	Glu	Asp	Ile	Ile	Leu	Leu	Arg	Glu	Leu	His	Val
			95						100					105
Asn	His	Tyr	Arg	Phe	Ser	Leu	Ser	Trp	Pro	Arg	Leu	Leu	Pro	Thr
			110						115					120
Gly	Ile	Arg	Ala	Glu	Gln	Val	Asn	Lys	Lys	Gly	Ile	Glu	Phe	Tyr
			125						130					135
Ser	Asp	Leu	Ile	Asp	Ala	Leu	Leu	Ser	Ser	Asn	Ile	Thr	Pro	Ile
			140						145					150
Val	Thr	Leu	His	His	Trp	Asp	Leu	Pro	Gln	Leu	Leu	Gln	Val	Lys
			155						160					165
Tyr	Gly	Gly	Trp	Gln	Asn	Val	Ser	Met	Ala	Asn	Tyr	Phe	Arg	Asp
			170						175					180
Tyr	Ala	Asn	Leu	Cys	Phe	Glu	Ala	Phe	Gly	Asp	Arg	Val	Lys	His
			185						190					195
Trp	Ile	Thr	Phe	Ser	Asp	Pro	Arg	Ala	Met	Ala	Glu	Lys	Gly	Tyr
			200						205					210
Glu	Thr	Gly	His	His	Ala	Pro	Gly	Leu	Lys	Leu	Arg	Gly	Thr	Gly
			215						220					225
Leu	Tyr	Lys	Ala	Ala	His	His	Ile	Ile	Lys	Ala	His	Ala	Lys	Thr
			230						235					240
Trp	His	Ser	Tyr	Asn	Thr	Thr	Trp	Arg	Ser	Lys	Gln	Gln	Gly	Leu
			245						250					255
Val	Gly	Ile	Ser	Leu	Asn	Cys	Asp	Trp	Gly	Glu	Pro	Val	Asp	Ile
			260						265					270
Ser	Asn	Pro	Lys	Asp	Leu	Glu	Ala	Ala	Glu	Arg	Tyr	Leu	Gln	Phe
			275						280					285
Cys	Leu	Gly	Trp	Phe	Ala	Asn	Pro	Ile	Tyr	Ala	Gly	Asp	Tyr	Pro
			290						295					300

Gln Val Met Lys	Asp Tyr Ile Gly Arg	Lys Ser Ala Glu Gln Gly	305	310	315
Leu Glu Met Ser	Arg Leu Pro Val Phe	Ser Leu Gln Glu Lys Ser	320	325	330
Tyr Ile Lys Gly	Thr Ser Asp Phe Leu Gly	Leu Gly His Phe Thr	335	340	345
Thr Arg Tyr Ile	Thr Glu Arg Asn Tyr	Pro Ser Arg Gln Gly Pro	350	355	360
Ser Tyr Gln Asn	Asp Arg Asp Leu Ile	Glu Leu Val Asp Pro Asn	365	370	375
Trp Pro Asp Leu	Gly Ser Lys Trp Leu Tyr	Ser Val Pro Trp Gly	380	385	390
Phe Arg Arg Leu	Leu Asn Phe Ala Gln Thr	Gln Tyr Gly Asp Pro	395	400	405
Pro Ile Tyr Val	Met Glu Asn Gly Ala Ser	Gln Lys Phe His Cys	410	415	420
Thr Gln Leu Cys	Asp Glu Trp Arg Ile Gln	Tyr Leu Lys Gly Tyr	425	430	435
Ile Asn Glu Met	Leu Lys Ala Ile Lys Asp	Gly Ala Asn Ile Lys	440	445	450
Gly Tyr Thr Ser	Trp Ser Leu Leu Asp Lys	Phe Glu Trp Glu Lys	455	460	465
Gly Tyr Ser Asp	Arg Tyr Gly Phe Tyr Tyr	Val Glu Phe Asn Asp	470	475	480
Arg Asn Lys Pro	Arg Tyr Pro Lys Ala Ser	Val Gln Tyr Tyr Lys	485	490	495
Lys Ile Ile Ile	Ala Asn Gly Phe Pro Asn	Pro Arg Glu Val Glu	500	505	510
Ser Trp Tyr Leu	Lys Ala Leu Glu Thr Cys	Ser Ile Asn Asn Gln	515	520	525
Met Leu Ala Ala	Glu Pro Leu Leu Ser His	Met Gln Met Val Thr	530	535	540
Glu Ile Val Val	Pro Thr Val Cys Ser Leu	Cys Val Leu Ile Thr	545	550	555
Ala Val Leu Leu	Met Leu Leu Leu Arg Arg	Gln Ser	560	565	

<210> 349
 <211> 1402
 <212> DNA
 <213> Homosapiens

<400> 349
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 tggtttcatc ttaataccaa cgtcatgtct ggttctaatt gttccaaaga 200
 aaattctcac aataaggctc ggacgtctct ttaccagggt tcaaaagttg 250
 aacgaagcca ggttcctaata gagaaagttg gctggccttg tgagtggcaa 300
 gactataagc ctgtggaata cactgcagtc tctgtcttgg ctggaccagg 350
 gtgggcagat cctcagatca gtgaaagtaa tttttctccc aagtttaacg 400
 aaaaggatgg gcatgttgag agaaagagca agaatggcct gtatgagatt 450
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 ggggcttttg gggcgatggg gcccaaatca cgctgcagat cccattataa 550
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 atttgcatct agagtgttcc gcatcagaat aacatgagta agatgaactg 1250
 gaacacaaaa ttttcagctc tttgggtcaaa aggaatataa gtaatcatat 1300
 tttgtatgta ttcgatttaa gcatggctta aattaaattt aaacaactaa 1350
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<210> 350
 <211> 350
 <212> PRT
 <213> Homosapiens

<400> 350
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Gly	Ile	Gln	Ala	Phe	Arg	Asn	Ser	Phe	Ser	Ser	Ser	Trp	Phe	His
				35					40					45
Leu	Asn	Thr	Asn	Val	Met	Ser	Gly	Ser	Asn	Gly	Ser	Lys	Glu	Asn
				50					55					60
Ser	His	Asn	Lys	Ala	Arg	Thr	Ser	Pro	Tyr	Pro	Gly	Ser	Lys	Val
				65					70					75
Glu	Arg	Ser	Gln	Val	Pro	Asn	Glu	Lys	Val	Gly	Trp	Leu	Val	Glu
				80					85					90
Trp	Gln	Asp	Tyr	Lys	Pro	Val	Glu	Tyr	Thr	Ala	Val	Ser	Val	Leu
				95					100					105
Ala	Gly	Pro	Arg	Trp	Ala	Asp	Pro	Gln	Ile	Ser	Glu	Ser	Asn	Phe
				110					115					120
Ser	Pro	Lys	Phe	Asn	Glu	Lys	Asp	Gly	His	Val	Glu	Arg	Lys	Ser
				125					130					135
Lys	Asn	Gly	Leu	Tyr	Glu	Ile	Glu	Asn	Gly	Arg	Pro	Arg	Asn	Pro
				140					145					150
Ala	Gly	Arg	Thr	Gly	Leu	Val	Gly	Arg	Gly	Leu	Leu	Gly	Arg	Trp
				155					160					165
Gly	Pro	Asn	His	Ala	Ala	Asp	Pro	Ile	Ile	Thr	Arg	Trp	Lys	Arg
				170					175					180
Asp	Ser	Ser	Gly	Asn	Lys	Ile	Met	His	Pro	Val	Ser	Gly	Lys	His
				185					190					195
Ile	Leu	Gln	Phe	Val	Ala	Ile	Lys	Arg	Lys	Asp	Cys	Gly	Glu	Trp
				200					205					210
Ala	Ile	Pro	Gly	Gly	Met	Val	Asp	Pro	Gly	Glu	Lys	Ile	Ser	Ala
				215					220					225
Thr	Leu	Lys	Arg	Glu	Phe	Gly	Glu	Glu	Ala	Leu	Asn	Ser	Leu	Gln
				230					235					240
Lys	Thr	Ser	Ala	Glu	Lys	Arg	Glu	Ile	Glu	Glu	Lys	Leu	His	Lys
				245					250					255
Leu	Phe	Ser	Gln	Asp	His	Leu	Val	Ile	Tyr	Lys	Gly	Tyr	Val	Asp
				260					265					270
Asp	Pro	Arg	Asn	Thr	Asp	Asn	Ala	Trp	Met	Glu	Thr	Glu	Ala	Val
				275					280					285
Asn	Tyr	His	Asp	Glu	Thr	Gly	Glu	Ile	Met	Asp	Asn	Leu	Met	Leu
				290					295					300
Glu	Ala	Gly	Asp	Asp	Ala	Gly	Lys	Val	Lys	Trp	Val	Asp	Ile	Asn
				305					310					315
Asp	Lys	Leu	Lys	Leu	Tyr	Ala	Ser	His	Ser	Gln	Phe	Ile	Lys	Leu
				320					325					330

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Asp Cys His Ala Leu
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<210> 351

<211> 1863

<212> DNA

<213> Homosapiens

<400> 351

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gcctcctgct ctacagctca atcctggctc tctggatgct ccaaggctcc 300
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agacatcgtg ggttcccca atggttccat gctgctgcgc cgcgccagc 550
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<210> 352

<211> 300

<212> PRT

<213> Homosapiens

<400> '352

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Leu	Leu	Ser	Ala	Ser	Ile	Leu	Val	Leu	Trp	Met	Leu	Gln	Gly	Ser
				20					25					30
Gln	Ala	Ala	Leu	Tyr	Ile	Gln	Lys	Ile	Pro	Glu	Gln	Pro	Gln	Lys
				35					40					45
Asn	Gln	Asp	Leu	Leu	Leu	Ser	Val	Gln	Gly	Val	Pro	Asp	Thr	Phe
				50					55					60
Gln	Asp	Phe	Asn	Trp	Tyr	Leu	Gly	Glu	Glu	Thr	Tyr	Gly	Gly	Thr
				65					70					75
Arg	Leu	Phe	Thr	Tyr	Ile	Pro	Gly	Ile	Gln	Arg	Pro	Gln	Arg	Asp
				80					85					90
Gly	Ser	Ala	Met	Gly	Gln	Arg	Asp	Ile	Val	Gly	Phe	Pro	Asn	Gly
				95					100					105
Ser	Met	Leu	Leu	Arg	Arg	Ala	Gln	Pro	Thr	Asp	Ser	Gly	Thr	Tyr
				110					115					120
Gln	Val	Ala	Ile	Thr	Ile	Asn	Ser	Glu	Trp	Thr	Met	Lys	Ala	Lys
				125					130					135
Thr	Glu	Val	Gln	Val	Ala	Glu	Lys	Asn	Lys	Glu	Leu	Pro	Ser	Thr
				140					145					150
His	Leu	Pro	Thr	Asn	Ala	Gly	Ile	Leu	Ala	Ala	Thr	Ile	Ile	Gly
				155					160					165

Ser	Leu	Ala	Ala	Gly	Ala	Leu	Leu	Ile	Ser	Cys	Ile	Ala	Tyr	Leu
				170					175					180
Leu	Val	Thr	Arg	Asn	Trp	Arg	Gly	Gln	Ser	His	Arg	Leu	Pro	Ala
				185					190					195
Pro	Arg	Gly	Gln	Gly	Ser	Leu	Ser	Ile	Leu	Cys	Ser	Ala	Val	Ser
				200					205					210
Pro	Val	Pro	Ser	Val	Thr	Pro	Ser	Thr	Trp	Met	Ala	Thr	Thr	Glu
				215					220					225
Lys	Pro	Glu	Leu	Gly	Pro	Ala	His	Asp	Ala	Gly	Asp	Asn	Asn	Ile
				230					235					240
Tyr	Glu	Val	Met	Pro	Ser	Pro	Val	Leu	Leu	Val	Ser	Pro	Ile	Ser
				245					250					255
Asp	Thr	Arg	Ser	Ile	Asn	Pro	Ala	Arg	Pro	Leu	Pro	Thr	Pro	Pro
				260					265					270
His	Leu	Gln	Ala	Glu	Pro	Glu	Asn	His	Gln	Tyr	Gln	Gln	Asp	Leu
				275					280					285
Leu	Asn	Pro	Asp	Pro	Ala	Pro	Tyr	Cys	Gln	Leu	Val	Pro	Thr	Ser
				290					295					300

<210> 353

<211> 1152

<212> DNA

<213> Homosapiens

<400> 353

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ccctggccac cagctgcctc cttctcttgg cctcttgggt acagggagga 150
gcagctgcgc ccatcagctc ccaactgcagg cttgacaagt ccaacttcca 200
gcagccctat atcaccaacc gcaccttcat gctgggctaag gaggctagct 250
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<210> 354

<211> 179

<212> PRT

<213> Homosapiens

<400> 354

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				20					25				30	
Gly	Ala	Ala	Ala	Pro	Ile	Ser	Ser	His	Cys	Arg	Leu	Asp	Lys	Ser
				35					40				45	
Asn	Phe	Gln	Gln	Pro	Tyr	Ile	Thr	Asn	Arg	Thr	Phe	Met	Leu	Ala
				50					55				60	
Lys	Glu	Ala	Ser	Leu	Ala	Asp	Asn	Asn	Thr	Asp	Val	Arg	Leu	Ile
				65					70				75	
Gly	Glu	Lys	Leu	Phe	His	Gly	Val	Ser	Met	Ser	Glu	Arg	Cys	Tyr
				80					85				90	
Leu	Met	Lys	Gln	Val	Leu	Asn	Phe	Thr	Leu	Glu	Glu	Val	Leu	Phe
				95					100				105	
Pro	Gln	Ser	Asp	Arg	Phe	Gln	Pro	Tyr	Met	Gln	Glu	Val	Val	Pro
				110					115				120	
Phe	Leu	Ala	Arg	Leu	Ser	Asn	Arg	Leu	Ser	Thr	Cys	His	Ile	Glu
				125					130				135	
Gly	Asp	Asp	Leu	His	Ile	Gln	Arg	Asn	Val	Gln	Lys	Leu	Lys	Asp
				140					145				150	
Thr	Val	Lys	Lys	Leu	Gly	Glu	Ser	Gly	Glu	Ile	Lys	Ala	Ile	Gly
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Glu	Leu	Asp	Leu	Leu	Phe	Met	Ser	Leu	Arg	Asn	Ala	Cys	Ile	
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<210> 355

<211> 1060

<212> DNA

<213> Homosapiens

<400> 355

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 gggatccctt gaactttggg ctggaagtgt tgaacacagt tttgatatt 350
 ttccaaaaga ttgatcaag gtacttcata aatacacgga agaagagcta 400
 catattccag catgatgagc agactttgtc tgctttgaag gaggaagaga 450
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<210> 356

<211> 303

<212> PRT

<213> Homosapiens

<400> 356

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Ala	Leu	Trp	Trp	Val	Pro	Gly	Gln	Ser	Asp	Leu	Ser	His	Gly	Arg
				20					25				30	
Arg	Phe	Ser	Asp	Leu	Lys	Val	Cys	Gly	Asp	Glu	Glu	Cys	Ser	Met
			35					40					45	
Leu	Met	Tyr	Arg	Gly	Lys	Ala	Leu	Glu	Asp	Phe	Thr	Gly	Pro	Asp

50										55					60				
Cys	Arg	Phe	Val	Asn	Phe	Lys	Lys	Gly	Asp	Asp	Val	Tyr	Val	Tyr					
				65					70					75					
Tyr	Lys	Leu	Ala	Gly	Gly	Ser	Leu	Glu	Leu	Trp	Ala	Gly	Ser	Val					
				80					85					90					
Glu	His	Ser	Phe	Gly	Tyr	Phe	Pro	Lys	Asp	Leu	Ile	Lys	Val	Leu					
				95					100					105					
His	Lys	Tyr	Thr	Glu	Glu	Glu	Leu	His	Ile	Pro	Ala	Asp	Glu	Thr					
				110					115					120					
Asp	Phe	Val	Cys	Phe	Glu	Gly	Gly	Arg	Asp	Asp	Phe	Asn	Ser	Tyr					
				125					130					135					
Asn	Val	Glu	Glu	Leu	Leu	Gly	Ser	Leu	Glu	Leu	Glu	Asp	Ser	Val					
				140					145					150					
Pro	Glu	Glu	Ser	Lys	Lys	Ala	Glu	Glu	Val	Ser	Gln	His	Arg	Glu					
				155					160					165					
Lys	Ser	Pro	Glu	Glu	Ser	Arg	Gly	Arg	Glu	Leu	Asp	Pro	Val	Pro					
				170					175					180					
Glu	Pro	Glu	Ala	Phe	Arg	Ala	Asp	Ser	Glu	Asp	Gly	Glu	Gly	Ala					
				185					190					195					
Phe	Ser	Glu	Ser	Thr	Glu	Gly	Leu	Gln	Gly	Gln	Pro	Ser	Ala	Gln					
				200					205					210					
Glu	Ser	His	Pro	His	Thr	Ser	Gly	Pro	Ala	Ala	Asn	Ala	Gln	Gly					
				215					220					225					
Val	Gln	Ser	Ser	Leu	Asp	Thr	Phe	Glu	Glu	Ile	Leu	His	Asp	Lys					
				230					235					240					
Leu	Lys	Val	Pro	Gly	Ser	Glu	Ser	Arg	Thr	Gly	Asn	Ser	Ser	Pro					
				245					250					255					
Ala	Ser	Val	Glu	Arg	Glu	Lys	Thr	Asp	Ala	Tyr	Lys	Val	Leu	Lys					
				260					265					270					
Thr	Glu	Met	Ser	Gln	Arg	Gly	Ser	Gly	Gln	Cys	Val	Ile	His	Tyr					
				275					280					285					
Ser	Lys	Gly	Phe	Arg	Trp	His	Gln	Asn	Leu	Ser	Leu	Phe	Tyr	Lys					
				290					295					300					

Asp Cys Phe

<210> 357

<211> 1517

<212> DNA

<213> Homosapiens

<400> 357

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<210> 358
 <211> 173
 <212> PRT
 <213> Homosapiens

<400> 358

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Lys Gly Ala Arg Gly Phe Gly Arg Gly Ala Leu Ile Arg Leu Asn
 35          40          45
Ile Trp Pro Ala Val Gln Gly Ala Cys Lys Gln Leu Glu Val Cys
 50          55          60
Glu His Cys Val Glu Gly Asp Arg Ala Arg Asn Leu Ser Ser Cys
 65          70          75
Met Trp Glu Gln Cys Arg Pro Glu Glu Pro Gly His Cys Val Ala
 80          85          90
Gln Ser Glu Val Val Lys Glu Gly Cys Ser Ile Tyr Asn Arg Ser
 95          100          105
Glu Ala Cys Pro Ala Ala His His His Pro Thr Tyr Glu Pro Lys
 110          115          120
Thr Val Thr Thr Gly Ser Pro Pro Val Pro Glu Ala His Ser Pro
 125          130          135
Gly Phe Asp Gly Ala Ser Phe Ile Gly Gly Val Val Leu Val Leu
 140          145          150
Ser Leu Gln Ala Val Ala Phe Phe Val Leu His Phe Leu Lys Ala
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Lys Asp Ser Thr Tyr Gln Thr Leu
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<210> 359

<211> 521

<212> DNA

<213> Homosapiens

<400> 359

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<210> 360

<211> 128

<212> PRT

<213> Homosapiens

<400> 360

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Cys Ala Val His Gly Ile Phe Met Asp Arg Leu Ala Ser Lys Lys
20 25 30

Leu Cys Ala Asp Asp Glu Cys Val Tyr Thr Ile Ser Leu Ala Ser
35 40 45

Ala Gln Glu Asp Tyr Asn Ala Pro Asp Cys Arg Phe Ile Asn Val
50 55 60

Lys Lys Gly Gln Gln Ile Tyr Val Tyr Ser Lys Leu Val Lys Glu
65 70 75

Asn Gly Ala Gly Glu Phe Trp Ala Gly Ser Val Tyr Gly Asp Gly
80 85 90

Gln Asp Glu Met Gly Val Val Gly Tyr Phe Pro Arg Asn Leu Val
95 100 105

Lys Glu Gln Arg Val Tyr Gln Glu Ala Thr Lys Glu Val Pro Thr
110 115 120

Thr Asp Ile Asp Phe Phe Cys Glu
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<210> 361

<211> 1070

<212> DNA

<213> Murine

<400> 361

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ccgtgcaatc ccaagtgtga tggcagaact tacaaccctt cagaggagtg 200

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<210> 362
 <211> 140
 <212> PRT
 <213> Murine

<400> 362
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 Phe Ile Leu Glu Gly Val Thr Gly Ala Arg Lys Ile Ser Thr Phe
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 Ser Gly Pro Gly Ser Trp Pro Cys Asn Pro Lys Cys Asp Gly Arg
 35 40 45
 Thr Tyr Asn Pro Ser Glu Glu Cys Cys Val His Asp Thr Ile Leu
 50 55 60
 Pro Phe Lys Arg Ile Asn Leu Cys Gly Pro Ser Cys Thr Tyr Arg
 65 70 75
 Pro Cys Phe Glu Leu Cys Cys Pro Glu Ser Tyr Ser Pro Lys Lys
 80 85 90
 Lys Phe Ile Val Lys Leu Lys Val His Gly Glu Arg Ser His Cys
 95 100 105
 Ser Ser Ser Pro Ile Ser Arg Asn Cys Lys Ser Asn Lys Ile Phe
 110 115 120
 His Gly Glu Asp Ile Glu Asp Asn Gln Leu Ser Leu Arg Lys Lys
 125 130 135
 Ser Gly Asp Gln Pro
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<210> 363
 <211> 2380
 <212> DNA
 <213> Homosapiens

<400> 363
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<210> 364
 <211> 705
 <212> PRT
 <213> Homosapiens

<400> 364
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 35 40 45
 Ile Leu Cys Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val
 50 55 60
 Leu Ala Pro Thr His Leu Gln Thr Glu Leu Val Leu Arg Cys Gln
 65 70 75
 Lys Glu Thr Asp Cys Asp Leu Cys Leu Arg Val Ala Val His Leu
 80 85 90
 Ala Val His Gly His Trp Glu Glu Pro Glu Asp Glu Glu Lys Phe
 95 100 105
 Gly Gly Ala Ala Asp Ser Gly Val Glu Glu Pro Arg Asn Ala Ser
 110 115 120

Leu	Gln	Ala	Gln	Val	Val	Leu	Ser	Phe	Gln	Ala	Tyr	Pro	Thr	Ala	
				125					130					135	
Arg	Cys	Val	Leu	Leu	Glu	Val	Gln	Val	Pro	Ala	Ala	Leu	Val	Gln	
				140					145					150	
Phe	Gly	Gln	Ser	Val	Gly	Ser	Val	Val	Tyr	Asp	Cys	Phe	Glu	Ala	
				155					160					165	
Ala	Leu	Gly	Ser	Glu	Val	Arg	Ile	Trp	Ser	Tyr	Thr	Gln	Pro	Arg	
				170					175					180	
Tyr	Glu	Lys	Glu	Leu	Asn	His	Thr	Gln	Gln	Leu	Pro	Ala	Leu	Pro	
				185					190					195	
Trp	Leu	Asn	Val	Ser	Ala	Asp	Gly	Asp	Asn	Val	His	Leu	Val	Leu	
				200					205					210	
Asn	Val	Ser	Glu	Glu	Gln	His	Phe	Gly	Leu	Ser	Leu	Tyr	Trp	Asn	
				215					220					225	
Gln	Val	Gln	Gly	Pro	Pro	Lys	Pro	Arg	Trp	His	Lys	Asn	Leu	Thr	
				230					235					240	
Gly	Pro	Gln	Ile	Ile	Thr	Leu	Asn	His	Thr	Asp	Leu	Val	Pro	Cys	
				245					250					255	
Leu	Cys	Ile	Gln	Val	Trp	Pro	Leu	Glu	Pro	Asp	Ser	Val	Arg	Thr	
				260					265					270	
Asn	Ile	Cys	Pro	Phe	Arg	Glu	Asp	Pro	Arg	Ala	His	Gln	Asn	Leu	
				275					280					285	
Trp	Gln	Ala	Ala	Arg	Leu	Arg	Leu	Leu	Thr	Leu	Gln	Ser	Trp	Leu	
				290					295					300	
Leu	Asp	Ala	Pro	Cys	Ser	Leu	Pro	Ala	Glu	Ala	Ala	Leu	Cys	Trp	
				305					310					315	
Arg	Ala	Pro	Gly	Gly	Asp	Pro	Cys	Gln	Pro	Leu	Val	Pro	Pro	Leu	
				320					325					330	
Ser	Trp	Glu	Asn	Val	Thr	Val	Asp	Lys	Val	Leu	Glu	Phe	Pro	Leu	
				335					340					345	
Leu	Lys	Gly	His	Pro	Asn	Leu	Cys	Val	Gln	Val	Asn	Ser	Ser	Glu	
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Lys	Leu	Gln	Leu	Gln	Glu	Cys	Leu	Trp	Ala	Asp	Ser	Leu	Gly	Pro	
				365					370					375	
Leu	Lys	Asp	Asp	Val	Leu	Leu	Leu	Glu	Thr	Arg	Gly	Pro	Gln	Asp	
				380					385					390	
Asn	Arg	Ser	Leu	Cys	Ala	Leu	Glu	Pro	Ser	Gly	Cys	Thr	Ser	Leu	
				395					400					405	
Pro	Ser	Lys	Ala	Ser	Thr	Arg	Ala	Ala	Arg	Leu	Gly	Glu	Tyr	Leu	
				410					415					420	
Leu	Gln	Asp	Leu	Gln	Ser	Gly	Gln	Cys	Leu	Gln	Leu	Trp	Asp	Asp	
				425					430					435	

Asp	Leu	Gly	Ala	Leu	Trp	Ala	Cys	Pro	Met	Asp	Lys	Tyr	Ile	His
				440					445					450
Lys	Arg	Trp	Ala	Leu	Val	Trp	Leu	Ala	Cys	Leu	Leu	Phe	Ala	Ala
				455					460					465
Ala	Leu	Ser	Leu	Ile	Leu	Leu	Leu	Lys	Lys	Asp	His	Ala	Lys	Gly
				470					475					480
Trp	Leu	Arg	Leu	Leu	Lys	Gln	Asp	Val	Arg	Ser	Gly	Ala	Ala	Ala
				485					490					495
Arg	Gly	Arg	Ala	Ala	Leu	Leu	Leu	Tyr	Ser	Ala	Asp	Asp	Ser	Gly
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Phe	Glu	Arg	Leu	Val	Gly	Ala	Leu	Ala	Ser	Ala	Leu	Cys	Gln	Leu
				515					520					525
Pro	Leu	Arg	Val	Ala	Val	Asp	Leu	Trp	Ser	Arg	Arg	Glu	Leu	Ser
				530					535					540
Ala	Gln	Gly	Pro	Val	Ala	Trp	Phe	His	Ala	Gln	Arg	Arg	Gln	Thr
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Leu	Gln	Glu	Gly	Gly	Val	Val	Val	Leu	Leu	Phe	Ser	Pro	Gly	Ala
				560					565					570
Val	Ala	Leu	Cys	Ser	Glu	Trp	Leu	Gln	Asp	Gly	Val	Ser	Gly	Pro
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Gly	Ala	His	Gly	Pro	His	Asp	Ala	Phe	Arg	Ala	Ser	Leu	Ser	Cys
				590					595					600
Val	Leu	Pro	Asp	Phe	Leu	Gln	Gly	Arg	Ala	Pro	Gly	Ser	Tyr	Val
				605					610					615
Gly	Ala	Cys	Phe	Asp	Arg	Leu	Leu	His	Pro	Asp	Ala	Val	Pro	Ala
				620					625					630
Leu	Phe	Arg	Thr	Val	Pro	Val	Phe	Thr	Leu	Pro	Ser	Gln	Leu	Pro
				635					640					645
Asp	Phe	Leu	Gly	Ala	Leu	Gln	Gln	Pro	Arg	Ala	Pro	Arg	Ser	Gly
				650					655					660
Arg	Leu	Gln	Glu	Arg	Ala	Glu	Gln	Val	Ser	Arg	Ala	Leu	Gln	Pro
				665					670					675
Ala	Leu	Asp	Ser	Tyr	Phe	His	Pro	Pro	Gly	Thr	Pro	Ala	Pro	Gly
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Arg	Gly	Val	Gly	Pro	Gly	Ala	Gly	Pro	Gly	Ala	Gly	Asp	Gly	Thr
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<210> 365

<211> 1677

<212> DNA

<213> Homosapiens

<400> 365

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<210> 366
 <211> 304
 <212> PRT
 <213> Homosapiens

<400> 366

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Leu	Leu	Leu	Leu	Leu	Val	Val	Leu	Thr	Pro	Pro	Pro	Thr	Gly	Ala
				20					25					30
Arg	Pro	Ser	Pro	Gly	Pro	Asp	Tyr	Leu	Arg	Arg	Gly	Trp	Met	Arg
				35					40					45
Leu	Leu	Ala	Glu	Gly	Glu	Gly	Cys	Ala	Pro	Cys	Arg	Pro	Glu	Glu
				50					55					60
Cys	Ala	Ala	Pro	Arg	Gly	Cys	Leu	Ala	Gly	Arg	Val	Arg	Asp	Ala
				65					70					75
Cys	Gly	Cys	Cys	Trp	Glu	Cys	Ala	Asn	Leu	Glu	Gly	Gln	Leu	Cys
				80					85					90
Asp	Leu	Asp	Pro	Ser	Ala	His	Phe	Tyr	Gly	His	Cys	Gly	Glu	Gln
				95					100					105
Leu	Glu	Cys	Arg	Leu	Asp	Thr	Gly	Gly	Asp	Leu	Ser	Arg	Gly	Glu
				110					115					120
Val	Pro	Glu	Pro	Leu	Cys	Ala	Cys	Arg	Ser	Gln	Ser	Pro	Leu	Cys
				125					130					135
Gly	Ser	Asp	Gly	His	Thr	Tyr	Ser	Gln	Ile	Cys	Arg	Leu	Gln	Leu
				140					145					150
Ala	Ala	Arg	Ala	Arg	Pro	Asp	Ala	Asn	Leu	Thr	Val	Ala	His	Pro
				155					160					165
Gly	Pro	Cys	Glu	Ser	Gly	Pro	Gln	Ile	Val	Ser	His	Pro	Tyr	Asp
				170					175					180
Thr	Trp	Asn	Val	Thr	Gly	Gln	Asp	Val	Ile	Phe	Gly	Cys	Glu	Val
				185					190					195
Phe	Ala	Tyr	Pro	Met	Ala	Ser	Ile	Glu	Trp	Arg	Lys	Asp	Gly	Leu
				200					205					210
Asp	Ile	Gln	Leu	Pro	Gly	Asp	Asp	Pro	His	Ile	Ser	Val	Gln	Phe
				215					220					225
Arg	Gly	Gly	Pro	Gln	Arg	Phe	Glu	Val	Thr	Gly	Trp	Leu	Gln	Ile
				230					235					240
Gln	Ala	Val	Arg	Pro	Ser	Asp	Glu	Gly	Thr	Tyr	Arg	Cys	Leu	Gly
				245					250					255
Arg	Asn	Ala	Leu	Gly	Gln	Val	Glu	Ala	Pro	Ala	Ser	Leu	Thr	Val
				260					265					270
Leu	Thr	Pro	Asp	Gln	Leu	Asn	Ser	Thr	Gly	Ile	Pro	Gln	Leu	Arg
				275					280					285

Ser Leu Asn Leu Val Pro Glu Glu Glu Ala Glu Ser Glu Glu Asn
 290 295 300

Asp Asp Tyr Tyr

<210> 367
 <211> 697
 <212> DNA
 <213> Homosapiens

<400> 367
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 gctgcttctg cggcgactg gtttcacatg tgcacagaca gatggccgga 100
 acggctacac ggcggtcatc gaagtgaacca gcgggggtcc ctggggcgac 150
 tgggcctggc ctgagatgtg tcccgatgga ttcttcgcca gcgggttctc 200
 gctcaagggt gagcctcccc aaggcattcc tggcgagcac actgactga 250
 atgggtagcg gctgactgc gcgcgcgga acgtcctagg caatacgcac 300
 gtggtagagt ccagctctgg aagctggggc gaatggagtg agccgctgtg 350
 gtgtcgcggc ggcgcctacc tagtggcttt ctgccttcgc gtggaggcac 400
 ccacgacctc cggtgacaac acagcagcga acaacgtgcy cttccgctgt 450
 tcagacggcg aggaactgca ggggcctggg ctgagctggg gagactttgg 500
 agactggagt gaccattgcc ccaaggcgcc gtgcggcctg cagaccaaga 550
 tccagggacc tagaggcctc ggcgatgaca ctgcgctgaa cgacgcgcgc 600
 ttattctgct gccgcagttg aacggcgccg ccgccgccgc tctctcccg 650
 gccaggaggc tagtcccacc tcttgctatt aaagcttctc tgagttg 697

<210> 368
 <211> 202
 <212> PRT
 <213> Homosapiens

<400> 368
 Met Glu Arg Gly Ala Gly Ala Lys Leu Leu Pro Leu Leu Leu Leu
 1 5 10 15
 Leu Arg Ala Thr Gly Phe Thr Cys Ala Gln Thr Asp Gly Arg Asn
 20 25 30
 Gly Tyr Thr Ala Val Ile Glu Val Thr Ser Gly Gly Pro Trp Gly
 35 40 45
 Asp Trp Ala Trp Pro Glu Met Cys Pro Asp Gly Phe Phe Ala Ser
 50 55 60
 Gly Phe Ser Leu Lys Val Glu Pro Pro Gln Gly Ile Pro Gly Asp
 65 70 75
 Asp Thr Ala Leu Asn Gly Ile Arg Leu His Cys Ala Arg Gly Asn
 80 85 90

Val Leu Gly Asn Thr His Val Val Glu Ser Gln Ser Gly Ser Trp
 95 100 105
 Gly Glu Trp Ser Glu Pro Leu Trp Cys Arg Gly Gly Ala Tyr Leu
 110 115 120
 Val Ala Phe Ser Leu Arg Val Glu Ala Pro Thr Thr Leu Gly Asp
 125 130 135
 Asn Thr Ala Ala Asn Asn Val Arg Phe Arg Cys Ser Asp Gly Glu
 140 145 150
 Glu Leu Gln Gly Pro Gly Leu Ser Trp Gly Asp Phe Gly Asp Trp
 155 160 165
 Ser Asp His Cys Pro Lys Gly Ala Cys Gly Leu Gln Thr Lys Ile
 170 175 180
 Gln Gly Pro Arg Gly Leu Gly Asp Asp Thr Ala Leu Asn Asp Ala
 185 190 195
 Arg Leu Phe Cys Cys Arg Ser
 200

<210> 369
 <211> 1030
 <212> DNA
 <213> Homosapiens

<400> 369
 gccaacactg gccaaacctc ggagaccgtc ctgcgtcttc tggagacgcg 50
 ctgtccgcgc ccagggtggt gccatgtggg gcgctgcgcg ctgcgtccgtc 100
 tcctcatcct ggaacgcgcg ttcgctcctg cagctgctgc tggctgcgct 150
 gctggcgcg ggggcgaggg ccagcggcga gtactgccac ggctggcttg 200
 acgcgcaggg cgtctggcgc atcggcttcc agtgtccga gcgcttcgac 250
 ggcggcgacg ccaccatctg ctgcgcgacg tgcgcgttgc gctactgctg 300
 ctccagcgcc gaggcgcgcc tggaccaggg cggtgcgac aatgaccgcc 350
 agcagggcgc tggcgagcct ggccgggcgg acaaagacgg ccccgacggc 400
 tcggcagtcg ccattctacgt gccgttcctc attgttggt ccgtgtttgt 450
 cgccctttatc atcttggggg ccctggtggc agcctgttgc tgcagatgct 500
 tccggcctaa gcaggatccc cagcagagcc gagccccagg gggtaaccgc 550
 ttgatggaga ccatcccat gatccccagt gccagcacct cccgggggtc 600
 gtccctcacgc cagtccagca cagctgccag ttccagctcc agcgccaact 650
 caggggcccg ggcccccca acaaggtcac agaccaactg ttgcttgccg 700
 gaagggaacca tgaacaactg gtatgtcaac atgccacga atttctctgt 750
 gctgaactgt cagcaggcca cccagattgt gccacatcaa gggcagtatc 800
 tgcattcccc atacgtgggg tacacgggtc agcacgactc tgtgcccatg 850

acagctgtgc cacctttcat ggacggcctg cagcctggct acaggcagat 900
 tcagtccccc ttccctcaca ccaacagtga acagaagatg taccagcgg 950
 tgactgtata accgagagtc actggtgggt tcctttactg aaggagagacg 1000
 aaggcagggg tggattttcg aggtggaagt 1030

<210> 370

<211> 295

<212> PRT

<213> Homosapiens

<400> 370

Met	Trp	Gly	Ala	Arg	Arg	Ser	Ser	Val	Ser	Ser	Ser	Trp	Asn	Ala
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				20					25					30
Ala	Arg	Ala	Ser	Gly	Glu	Tyr	Cys	His	Gly	Trp	Leu	Asp	Ala	Gln
				35					40					45
Gly	Val	Trp	Arg	Ile	Gly	Phe	Gln	Cys	Pro	Glu	Arg	Phe	Asp	Gly
				50					55					60
Gly	Asp	Ala	Thr	Ile	Cys	Cys	Gly	Ser	Cys	Ala	Leu	Arg	Tyr	Cys
				65					70					75
Cys	Ser	Ser	Ala	Glu	Ala	Arg	Leu	Asp	Gln	Gly	Gly	Cys	Asp	Asn
				80					85					90
Asp	Arg	Gln	Gln	Gly	Ala	Gly	Glu	Pro	Gly	Arg	Ala	Asp	Lys	Asp
				95					100					105
Gly	Pro	Asp	Gly	Ser	Ala	Val	Pro	Ile	Tyr	Val	Pro	Phe	Leu	Ile
				110					115					120
Val	Gly	Ser	Val	Phe	Val	Ala	Phe	Ile	Ile	Leu	Gly	Ser	Leu	Val
				125					130					135
Ala	Ala	Cys	Cys	Cys	Arg	Cys	Leu	Arg	Pro	Lys	Gln	Asp	Pro	Gln
				140					145					150
Gln	Ser	Arg	Ala	Pro	Gly	Gly	Asn	Arg	Leu	Met	Glu	Thr	Ile	Pro
				155					160					165
Met	Ile	Pro	Ser	Ala	Ser	Thr	Ser	Arg	Gly	Ser	Ser	Ser	Arg	Gln
				170					175					180
Ser	Ser	Thr	Ala	Ala	Ser	Ser	Ser	Ser	Ser	Ala	Asn	Ser	Gly	Ala
				185					190					195
Arg	Ala	Pro	Pro	Thr	Arg	Ser	Gln	Thr	Asn	Cys	Cys	Leu	Pro	Glu
				200					205					210
Gly	Thr	Met	Asn	Asn	Val	Tyr	Val	Asn	Met	Pro	Thr	Asn	Phe	Ser
				215					220					225
Val	Leu	Asn	Cys	Gln	Gln	Ala	Thr	Gln	Ile	Val	Pro	His	Gln	Gly
				230					235					240
Gln	Tyr	Leu	His	Pro	Pro	Tyr	Val	Gly	Tyr	Thr	Val	Gln	His	Asp

	245		250		255
Ser Val Pro Met Thr Ala Val Pro Pro Phe Met Asp Gly Leu Gln					
	260		265		270
Pro Gly Tyr Arg Gln Ile Gln Ser Pro Phe Pro His Thr Asn Ser					
	275		280		285
Glu Gln Lys Met Tyr Pro Ala Val Thr Val					
	290		295		

<210> 371
 <211> 2445
 <212> DNA
 <213> Homosapiens

<220>
 <221> unsure
 <222> 2424
 <223> unknown base

<400> 371
 caccagacag cactccagca ctctgtttgg ggggcattcg aaacagcaaa 50
 atcactcata aaaggcaaaa aattgcaaaa aaaaatagta ataaccagca 100
 tggcactaaa tagaccatga aaagacatgt gtgtgcagta tgaattga 150
 gacaggaagg cagagtgtca gcttgttcca cctcagctgg gaattgtcat 200
 caggcaactc aagtttttca ccacggcatg tgtctgtgaa tgtccgcaaa 250
 acattctctc tccccagcct tcatgtgtta acctggggat gatgtggacc 300
 tgggcactgt ggatgctccc ttactctgc aaattcagcc tggcagctct 350
 gccagctaag cctgagaaca ttctctgtgt ctactactat aggaaaaatt 400
 taacctgcac ttggagtcca ggaaaggaaa ccagttatac ccagtacaca 450
 gttaagagaa cttacgcttt tgagaaaaaa catgataatt gtacaaccaa 500
 tagttctaca agtgaaaatc gtgctctgtg ctcttttttc cttccaagaa 550
 taacgatccc agataattat accattgagg tggaagctga aaatggagat 600
 ggtgtaatta aatctcatat gacatactgg agattagaga acatagcgaa 650
 aactgaacca cctaagattt tccgtgtgaa accagttttg ggcatacaac 700
 gaatgattca aattgaatgg ataaagcctg agttggcgcc tgtttcatct 750
 gatttaaaat acacacttcg attcaggaca gtcaacagta ccagctggat 800
 ggaagtcaac ttcgctaaga accgtaagaa taaaaaccaa acgtacaacc 850
 tcacggggct gcagcctttt acagaatatg tcatagctct gcgatgtgcg 900
 gtcaaggagt caaagttctg gactgactgg agccaagaaa aaatgggaat 950
 gactgaggaa gaagctccat gtggcctgga actgtggaga gtcctgaaac 1000
 cagctgaggg ggatggaaga aggccagtcg ggttgttatg gaagaaggca 1050

agaggagccc cagtcctaga gaaaacactt ggctacaaca tatggtacta 1100
 tccagaaaagc aacactaacc tcacagaaac aatgaacact actaaccagc 1150
 agcttgaact gcatctggga ggcgagagct tttgggtgtc tatgatttct 1200
 tataattctc ttgggaagtc tccagtggcc accctgagga ttccagctat 1250
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 aggaccagct agtgggtgaag tggcaaagct ctgctctaga cgtgaacact 1350
 tggatgattg aatggtttcc ggatgtggac tcagagccca ccaccctttc 1400
 ctgggaatct gtgtctcagg ccacgaactg gacgatccag caagataaat 1450
 taaaaccttt ctggtgctat aacatctctg tgtatccaat gttgcatgac 1500
 aaagttggcg agccatattc catccaggct tatgccaag aaggcgttcc 1550
 atcagaaggc cctgagacca aggtggagaa cattggcgtg aagacgggtca 1600
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 atagacctgt tgtaggcatg gctcccccat ctcatgtga cttgcaacct 1800
 ggcgatgaac acttagcttc tttaaatctc tctgaaaatg gggccaagag 1850
 caccacacct ttggggtttt ggggggttaa tgagagtga gtgacagtac 1900
 ctgagaggag agtctgagg aaatggaagg agttgttata atttgtcctg 1950
 gttaggccct gaattgacct ccggggagct ccccgacct cattcccagg 2000
 aatggcgtgc ctggcttaaa gagtgaggag gaacagaccc tgtcaccatg 2050
 acttctactg cccctgcaa atcatgcttt tgtttttcag tccaccttat 2100
 ctctgacat cttaaatact gggcaaggct tggattcttg cttaggctaa 2150
 ataatttttt cttatggtaa aatacacgta aaatattttt ccagtttaaa 2200
 catttgaag tgtacaattt agtggcatta gaagcattca caatattgtg 2250
 caaccatcac cactatttcc agaactcttc tattttgtcc caaatagaag 2300
 ccctataccc attcattagt cactccccat tctctctcct ccacagcccc 2350
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 tttcatatac atagaatcat aaantaaaaa aaaaaaaaaa aaaaa 2445

<210> 372
 <211> 582
 <212> PRT
 <213> Homosapiens

<400> 372
 Met Cys Ile Arg Gln Leu Lys Phe Phe Thr Thr Ala Cys Val Cys

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Glu Cys Pro Gln Asn Ile Leu Ser Pro Gln Pro Ser Cys Val Asn	20	25	30
Leu Gly Met Met Trp Thr Trp Ala Leu Trp Met Leu Pro Ser Leu	35	40	45
Cys Lys Phe Ser Leu Ala Ala Leu Pro Ala Lys Pro Glu Asn Ile	50	55	60
Ser Cys Val Tyr Tyr Tyr Arg Lys Asn Leu Thr Cys Thr Trp Ser	65	70	75
Pro Gly Lys Glu Thr Ser Tyr Thr Gln Tyr Thr Val Lys Arg Thr	80	85	90
Tyr Ala Phe Gly Glu Lys His Asp Asn Cys Thr Thr Asn Ser Ser	95	100	105
Thr Ser Glu Asn Arg Ala Ser Cys Ser Phe Phe Leu Pro Arg Ile	110	115	120
Thr Ile Pro Asp Asn Tyr Thr Ile Glu Val Glu Ala Glu Asn Gly	125	130	135
Asp Gly Val Ile Lys Ser His Met Thr Tyr Trp Arg Leu Glu Asn	140	145	150
Ile Ala Lys Thr Glu Pro Pro Lys Ile Phe Arg Val Lys Pro Val	155	160	165
Leu Gly Ile Lys Arg Met Ile Gln Ile Glu Trp Ile Lys Pro Glu	170	175	180
Leu Ala Pro Val Ser Ser Asp Leu Lys Tyr Thr Leu Arg Phe Arg	185	190	195
Thr Val Asn Ser Thr Ser Trp Met Glu Val Asn Phe Ala Lys Asn	200	205	210
Arg Lys Asp Lys Asn Gln Thr Tyr Asn Leu Thr Gly Leu Gln Pro	215	220	225
Phe Thr Glu Tyr Val Ile Ala Leu Arg Cys Ala Val Lys Glu Ser	230	235	240
Lys Phe Trp Ser Asp Trp Ser Gln Glu Lys Met Gly Met Thr Glu	245	250	255
Glu Glu Ala Pro Cys Gly Leu Glu Leu Trp Arg Val Leu Lys Pro	260	265	270
Ala Glu Ala Asp Gly Arg Arg Pro Val Arg Leu Leu Trp Lys Lys	275	280	285
Ala Arg Gly Ala Pro Val Leu Glu Lys Thr Leu Gly Tyr Asn Ile	290	295	300
Trp Tyr Tyr Pro Glu Ser Asn Thr Asn Leu Thr Glu Thr Met Asn	305	310	315
Thr Thr Asn Gln Gln Leu Glu Leu His Leu Gly Gly Glu Ser Phe			

320	325	330
Trp Val Ser Met Ile Ser Tyr Asn Ser	Leu Gly Lys Ser Pro Val	
335	340	345
Ala Thr Leu Arg Ile Pro Ala Ile Gln	Glu Lys Ser Phe Gln Cys	
350	355	360
Ile Glu Val Met Gln Ala Cys Val Ala	Glu Asp Gln Leu Val Val	
365	370	375
Lys Trp Gln Ser Ser Ala Leu Asp Val	Asn Thr Trp Met Ile Glu	
380	385	390
Trp Phe Pro Asp Val Asp Ser Glu Pro	Thr Thr Leu Ser Trp Glu	
395	400	405
Ser Val Ser Gln Ala Thr Asn Trp Thr	Ile Gln Gln Asp Lys Leu	
410	415	420
Lys Pro Phe Trp Cys Tyr Asn Ile Ser	Val Tyr Pro Met Leu His	
425	430	435
Asp Lys Val Gly Glu Pro Tyr Ser Ile	Gln Ala Tyr Ala Lys Glu	
440	445	450
Gly Val Pro Ser Glu Gly Pro Glu Thr	Lys Val Glu Asn Ile Gly	
455	460	465
Val Lys Thr Val Thr Ile Thr Trp Lys	Glu Ile Pro Lys Ser Glu	
470	475	480
Arg Lys Gly Ile Ile Cys Asn Tyr Thr	Ile Phe Tyr Gln Ala Glu	
485	490	495
Gly Gly Lys Gly Phe Cys Lys His Ala	His Ser Glu Val Glu Lys	
500	505	510
Asn Pro Lys Pro Gln Ile Asp Ala Met	Asp Arg Pro Val Val Gly	
515	520	525
Met Ala Pro Pro Ser His Cys Asp Leu	Gln Pro Gly Met Asn His	
530	535	540
Leu Ala Ser Leu Asn Leu Ser Glu Asn	Gly Ala Lys Ser Thr His	
545	550	555
Leu Leu Gly Phe Trp Gly Leu Asn Glu	Ser Glu Val Thr Val Pro	
560	565	570
Glu Arg Arg Val Leu Arg Lys Trp Lys	Glu Leu Leu	
575	580	

<210> 373

<211> 1743

<212> DNA

<213> Homosapiens

<400> 373

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ggctgcaagg gaggtctctg tggacaggcc aggcagggtg gcctcaggag 150
 gtgcctccag gcggccagtg ggcttgaggc ccagcaagg gctagggtcc 200
 atctccagtc ccaggacaca gcagcggcca ccatggccac gcctgggtcc 250
 cagcagcate agcagccccc aggaccgggg gaggcacagg tggcccccac 300
 caccgggagg agcagctcct gccctgtcc ggggatgac tgattctct 350
 ccgccaggcc acccagagga gaaggccacc ccgcctggag gcacaggcca 400
 tgaggggtcc tcaggaggtg ctgctgatgt ggcttctggt gttggcagtg 450
 ggcgccacag agcacgccta ccggcccggc cgttagggtg tgtgctgtcc 500
 cgggtcacg gggacctgt ctccgagtcg ttcgtgcagc gtgtgtacca 550
 gcccttctcc accacctgcg acgggcaccg ggctgcagc acctaccgaa 600
 ccatttatag gaccgcctac cgccgcagcc ctgggctggc cctgcagg 650
 cctcgctacg cgtgctgccc cgctggaag aggaccagcg ggcttctctg 700
 ggctgtgga gcagaatat gccagccgac atgccgaac ggagggagct 750
 gtgtccagcc tggccgctgc cgtgcccctg caggatggcg gggtagacct 800
 tgccagtcag atgtggatga atgcagtgt aggaggggag gctgtcccca 850
 gcgctgcac aacaccgccc gcagttactg gtgccagtgt tggagggggc 900
 acagcctgtc tcgagacggt acactctgtg tgcccaaggg agggccccc 950
 aggggtggccc ccaaccgac aggagtgagc agtgcaatga aggaagaagt 1000
 gcagaggctg cagtcagggt tggacctgct ggaggagaag ctgcagctgg 1050
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 ccggaccccc gcagcctcct ggtgcactcc tccagcagc tcggccgcat 1150
 cgactccctg agcagagcaga ttctcttctt ggaggagcag ctggggctct 1200
 gctcctgcaa gaaagactcg tgactgcca gcgccccagg ctggactgag 1250
 cccctcacgc cgccctgcag ccccatgcc cctgcccaac atgctggggg 1300
 tccagaagcc acctcggggt gactgagcgg aaggccaggc agggccttcc 1350
 tccttttctt cctcccttc cctcgggagg gtcccagac cctggcatgg 1400
 gatgggctgg gatttttttt gtgaatccac cctggctac cccaccctg 1450
 gttaccccaa cgcatccca aggccagggt ggccctcagc tgagggaagg 1500
 tacgagttcc cctgctggag cctgggaccc atggcacagg ccaggcagcc 1550
 cggaggctgg gtggggcctc agtgggggct gctgcctgac cccagcaca 1600
 ataaaaatga aacgtgaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
 aaaaaaaagg gcggccgcga ctctagagtc gacctgcaga agcttgccg 1700

ccatggccca acttgtttat tgcagcttat aatgggtaca aat 1743

<210> 374

<211> 295

<212> PRT

<213> Homosapiens

<400> 374

Met	Thr	Asp	Ser	Pro	Pro	Pro	Gly	His	Pro	Glu	Glu	Lys	Ala	Thr	15
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Pro	Pro	Gly	Gly	Thr	Gly	His	Glu	Gly	Leu	Ser	Gly	Gly	Ala	Ala	30
				20					25						
Asp	Val	Ala	Ser	Gly	Val	Gly	Ser	Gly	Arg	His	Arg	Ala	Arg	Leu	45
				35					40						
Pro	Ala	Arg	Pro	Leu	Gly	Cys	Val	Leu	Ser	Arg	Ala	His	Gly	Asp	60
				50					55						
Pro	Val	Ser	Glu	Ser	Phe	Val	Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	75
				65					70						
Thr	Thr	Cys	Asp	Gly	His	Arg	Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	90
				80					85						
Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	105
				95					100						
Pro	Arg	Tyr	Ala	Cys	Cys	Pro	Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	120
				110					115						
Pro	Gly	Ala	Cys	Gly	Ala	Ala	Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	135
				125					130						
Gly	Gly	Ser	Cys	Val	Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	150
				140					145						
Trp	Arg	Gly	Asp	Thr	Cys	Gln	Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	165
				155					160						
Arg	Arg	Gly	Gly	Cys	Pro	Gln	Arg	Cys	Ile	Asn	Thr	Ala	Gly	Ser	180
				170					175						
Tyr	Trp	Cys	Gln	Cys	Trp	Glu	Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	195
				185					190						
Thr	Leu	Cys	Val	Pro	Lys	Gly	Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	210
				200					205						
Pro	Thr	Gly	Val	Asp	Ser	Ala	Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	225
				215					220						
Gln	Ser	Arg	Val	Asp	Leu	Leu	Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	240
				230					235						
Ala	Pro	Leu	His	Ser	Leu	Ala	Ser	Gln	Ala	Leu	Glu	His	Gly	Leu	255
				245					250						
Pro	Asp	Pro	Gly	Ser	Leu	Leu	Val	His	Ser	Phe	Gln	Gln	Leu	Gly	270
				260					265						
Arg	Ile	Asp	Ser	Leu	Ser	Glu	Gln	Ile	Ser	Phe	Leu	Glu	Glu	Gln	

	275	280	285
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Leu Gly Ser Cys Ser Cys Lys Lys Asp Ser
 290 295

<210> 375
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223>

<400> 375
 ggattctaata acgactcact atagggccgg gtggaggtgg aacagaaa 48

<210> 376
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223>

<400> 376
 ctatgaaatt aaccctcact aaaggacac agacagagcc ccatacgc 48

<210> 377
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223>

<400> 377
 ggattctaata acgactcact atagggccag gaaatccgg atgtctc 47

<210> 378
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223>

<400> 378
 ctatgaaatt aaccctcact aaaggagta aggggatgcc accgagta 48

<210> 379
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223>

<400> 379
 ggattctaata acgactcact atagggccag ctacccgcag gaggagg 47

<210> 380
 <211> 48
 <212> DNA

<213> Artificial Sequence

<220>

<223>

<400> 380

ctatgaaatt aaccctcact aaagggatcc caggtgatga ggccaga 48

<210> 381

<211> 468

<212> DNA

<213> Homosapiens

<400> 381

ccatctcgga gacctttgtg cagcgtgtat accagcctta cctcaccact 50
 tgcgacggac acagagcctg cagcacctac cgaaccatct accggactgc 100
 ctatgcgctg agccctgggg tgactccgc aagcctcgct atgcttctg 150
 ccctggttgg aagaggacca gtgggctccc tggggcttgt ggagcagcaa 200
 tatgccagcc tccatgtggg aatggaggga gttgcatccg cccaggacac 250
 tgccgctgcc ctgtgggatg gcagggagat acttgccaga cagatgttga 300
 tgaatgcagt acaggagagg ccagttgtcc ccagcgctgt gtcaatactg 350
 tgggaagtta ctggtgccag ggatgggagg gacaaagccc atctgcagat 400
 gggacgcgct gcctgtctaa ggagggggccc tcccgggtggc cccaaccca 450
 cagcaggagt ggacagca 468

<210> 382

<211> 43

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<213> Artificial Sequence

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